

New IBM LinuxONE 4 Express to Offer Cost Savings and Client Value through a Cyber Resilient Hybrid Cloud and AI Platform

- **Newest IBM LinuxONE system is engineered to deliver cybersecurity, resiliency, scalability and AI inferencing for hybrid cloud environments.**
- **Moving Linux workloads from a compared x86 system to an IBM LinuxONE 4 Express can save over 52% on the total cost of ownership over 5 years. [1]**



LONDON, U.K., February 6, 2024 – IBM (NYSE: IBM) today announced [IBM LinuxONE 4 Express](#), extending the latest performance, security and AI capabilities of [LinuxONE](#) to small and medium sized businesses and within new data center environments. The pre-configured rack mount system is designed to offer cost savings[1] and to remove client guess work when spinning up workloads quickly and getting started with the platform to address new and traditional use cases such as digital assets, medical imaging with AI, and workload consolidation.

Building an integrated hybrid cloud strategy for today and years to come

As businesses move their products and services online quickly, oftentimes, they are left with a hybrid cloud environment created by default, with siloed stacks that are not conducive to alignment across businesses or the introduction of AI. In a recent IBM IBV survey, 84% of executives asked acknowledged their enterprise struggles in eliminating silo-to-silo handoffs. And 78% of responding executives said that an inadequate operating model impedes successful adoption of their multicloud platform.[2] With the pressure to accelerate and scale the impact of data and AI across the enterprise – and improve business outcomes – another approach that organisations can take is to more carefully identify which workloads should be on-premises vs in the cloud.

“IBM LinuxONE 4 Express is a chance for startups and small to medium-sized businesses to build an intentional hybrid cloud strategy from the ground up. IBM brings the power of hybrid cloud and AI in the latest LinuxONE 4 system to a simple, easy to use format that fits in many data centers,” said Tina Tarquinio, VP, Product Management, IBM Z and LinuxONE. “And as their businesses grow with the changing shifts in the market, LinuxONE 4 Express can scale to meet growing workload and performance requirements, in addition to offering

AI inferencing co-located with mission-critical data for growing AI use cases.”

Accelerating computing research for bio sciences

University College London is one of largest universities in the UK and well-known for their reputation as a public research institution. They’ve been working with IBM to build a sustainable hybrid cloud platform to support their academic research.

“Our Centre for Advanced Research Computing is critical to enable computational research across the sciences and humanities, as well as digital scholarship for students,” said Dr. Owain Kenway, Head of Research Computing at University College London. “We’re excited for LinuxONE 4 Express to support high I/O workloads like Next Generation Sequencing for Biosciences as well as supporting work in “Trusted Research Environments” (TREs), for example AI workloads on medical data. The system’s high performance and scalability suit our crucial research needs, and its affordability will allow us to make it available to both university research and industry players as a test bed.”

Delivering high scalability, availability and security for a range of data center environments and use cases

IBM LinuxONE Rockhopper 4, launched in April 2023 and based on the IBM Telum processor, features capabilities designed to reduce both energy consumption and data center floor space while delivering the scale, performance and security that clients need. Also built on the Telum processor and delivered in a rack mount format, IBM LinuxONE 4 Express offers high availability for clients who have strict resiliency requirements due to internal or external regulations. In fact, IBM LinuxONE 4 Express systems, with GDPS, IBM DS8000 series storage with HyperSwap and running a Red Hat OpenShift Container Platform environment, are designed to deliver 99.999999% (eight 9s) availability.[\[3\]](#)

"IBM LinuxONE is rapidly becoming a foundational part of the wider Infrastructure story within IBM," states Steven Dickens, VP and Practice Leader at The Futurum Group. "With the new LinuxONE 4 Express solution, IBM is uniquely positioned to handle mission-critical workloads with high availability. When you combine this with the system’s cybersecurity posture, IBM is well positioned for market traction."

The system addresses a whole new set of use cases that startups and small businesses are facing, including:

- **Digital assets:** IBM LinuxONE 4 Express provides a secured platform with confidential computing capabilities specifically designed to protect sensitive data, like digital assets. IBM Secure Execution for Linux is a hardware-based security technology that is now built into IBM LinuxONE 4 Express. Scalable isolation for individual workloads can help protect not only from external attacks, but also insider threats. This includes data in use, a particularly critical stage of security for digital assets use cases.
- **Medical imaging with AI:** With IBM Telum processor on-chip AI inferencing, clients can co-locate AI with mission-critical data on a LinuxONE system, allowing data analysis where the data is located. For example, health insurance companies could analyse large volumes of medical records in near real time to validate process claims, increasing the speed of business decision making.
- **Workload consolidation:** IBM LinuxONE 4 Express is designed to help clients simplify their IT environments and cut costs by consolidating databases onto a LinuxONE system. Designed to bring

significant cost savings for clients over time, clients that move Linux workloads from compared x86 server to an IBM LinuxONE 4 Express can save over 52% on their total cost of ownership over 5 years.[4]

Activating the IBM Ecosystem for client success

With the [IBM LinuxONE Ecosystem](#), including [AquaSecurity](#), [Clari5](#), [Exponential AI](#), [Opolito Technologies](#), [Pennant](#) and [Spiking](#), IBM is working to provide solutions for today's [sustainability](#) and cybersecurity challenges. For clients that run data serving, core banking and digital assets workloads, an optimised sustainability and security posture is key to protecting both sensitive private data and sustainable organisational goals. IBM Business Partners can learn more about the skills required to install, deploy, service and resell IBM LinuxONE 4 Express [here](#).

"We purchased an IBM LinuxONE III Express to run proofs of concepts for our strategic customers, and the feedback we have received so far has been excellent," said Eyad Alhabbash, Director, IBM Systems Solutions & Support Group at Saudi Business Machines (SBM). "LinuxONE III Express demonstrated better performance than the x86 running the same Red Hat OpenShift workload, and the customer noted how user-friendly the IBM LinuxONE is for server, storage and network management and operations."

The new IBM LinuxONE 4 Express, starting at \$135,000[5], will be generally available[6] from IBM and certified business partners on February 20, 2024.

To learn more, [join IBM clients and partners](#) on February 20, at 11 am ET for a deep dive, live webinar on industry trends, such as AI, sustainability and cybersecurity, as well as receive behind-the-scenes access to the new IBM LinuxONE 4 Express system.

[1] **DISCLAIMER:** Compared IBM LinuxONE 4 Express Model consisting of a CPC drawer and an I/O drawer to support network and external storage with 12 IFLs and 736 GB of memory in 1 frame, versus compared 3 x86 servers with two Xeon Sapphire Rapids Platinum 8444 processors with 32 cores each (2ch/32c) with a total of 384 cores. All Systems are modeled to be running Linux Postgres Enterprise-DB workloads with virtualisation and DB tools. Results may vary based on client-specific usage and location. LinuxONE hardware is the expected global price in \$USD and discounts. X86 purchase price was included and maintenance costs is from IDC's Pricing Service: <https://www.idc.com/myidc3/products> with an aggressive discount. Postgres Enterprise-DB software and tools prices are based on street prices that is discounted from the list price. TCO is calculated over a 5-year horizon. Cost estimates include hardware costs and annual maintenance, Linux OS subscription costs, virtualisation software, people cost, and infrastructure (network, energy, space) costs.

[2] [IBM IBV Research Insights: Mastering Hybrid Cloud](#), pg 11

[3] **Disclaimer:** IBM internal data based on measurements and projections was used in calculating the expected value. Necessary components include IBM LinuxONE Rockhopper 4; IBM z/VM V7.2 systems or above collected in a Single System Image, each running RHOC 4.10 or above; IBM Operations Manager; GDPS 4.5 for management of data recovery and virtual machine recovery across metro distance systems and storage,

including Metro Multi-site workload and GDPS Global; and IBM DS8000 series storage with IBM HyperSwap. A MongoDB v4.2 workload was used. Necessary resiliency technology must be enabled, including z/VM Single System Image clustering, GDPS xDR Proxy for z/VM, and Red Hat OpenShift Data Foundation (ODF) 4.10 for management of local storage devices. Application-induced outages are not included in the above measurements. Other configurations (hardware or software) may provide different availability characteristics.

[4] DISCLAIMER: Compared IBM LinuxONE 4 Express Model consisting of a CPC drawer and an I/O drawer to support network and external storage with 12 IFLs and 736 GB of memory in 1 frame, versus compared 3 x86 servers with two Xeon Sapphire Rapids Platinum 8444 processors with 32 cores each (2ch/32c) with a total of 384 cores. All Systems are modeled to be running Linux Postgres Enterprise-DB workloads with virtualisation and DB tools. Results may vary based on client-specific usage and location. LinuxONE hardware is the expected global price in \$USD and discounts. X86 purchase price was included and maintenance costs is from IDC's Pricing Service: <https://www.idc.com/myidc3/products> with an aggressive discount. Postgres Enterprise-DB software and tools prices are based on street prices that is discounted from the list price. TCO is calculated over a 5-year horizon. Cost estimates include hardware costs and annual maintenance, Linux OS subscription costs, virtualisation software, people cost, and infrastructure (network, energy, space) costs.

[5] This price reflects the base hardware configuration, and does not include additional items, maintenance, the operating system or other software. All prices are in USD. Prices shown do not include tax. Price will vary based on country and currency.

[6] Systems will not initially be available in Argentina, Mexico, Peru, Indonesia, Taiwan, South Korea, India and China.

About IBM

IBM is a leading provider of global hybrid cloud and AI, and consulting expertise. We help clients in more than 175 countries capitalise on insights from their data, streamline business processes, reduce costs and gain the competitive edge in their industries. More than 4,000 government and corporate entities in critical infrastructure areas such as financial services, telecommunications and healthcare rely on IBM's hybrid cloud platform and Red Hat OpenShift to affect their digital transformations quickly, efficiently and securely. IBM's breakthrough innovations in AI, quantum computing, industry-specific cloud solutions and consulting deliver open and flexible options to our clients. All of this is backed by IBM's long-standing commitment to trust, transparency, responsibility, inclusivity and service. For more information, visit www.ibm.com

Media Contact:

Imtiaz Mufti

Imtiaz.Mufti@ibm.com

