
**IBM LinuxONE
Announcement
September 2017**

IBM LinuxONE Emperor II
Announcement Frequently Asked Questions

Worldwide



IBM LinuxONE Emperor II Announcement

What is IBM announcing at Open Source Summit 2017 for IBM LinuxONE™?

IBM is announcing a new IBM LinuxONE Emperor™ II, based on IBM z14™ (z14) technology. IBM is also announcing a beta program around the integration of IBM Secure Service Container and the container ecosystem technologies. IBM Secure Service Containers help our clients deliver outstanding application protection against internal and external threats. The announcement will also highlight new client case studies that outline the LinuxONE momentum.

What makes LinuxONE so compelling for a client?

Data volumes, business demands, and the complexity of applications are increasing exponentially. Distributed commodity systems are struggling to handle this growth without sharding databases, decreasing response times due to latency, and increasing the security exposure of data.

Clients are looking for systems that provide security, speed and scalability – on a server able to run today's leading open source software. IBM LinuxONE can deliver this in a single system.

What are the key benefits of IBM LinuxONE?

IBM LinuxONE is a highly-engineered system for both data serving and premium cloud services. It accomplishes this by delivering industry leading security, faster data through application performance and the highest levels of scalability to handle the most unpredictable data and transaction growth.

With Emperor II you can protect your valued data, whether in flight or at rest, with low overhead, without changing your applications and with minimal impact to service level agreements (SLAs). Emperor II delivers IBM Secure Service Container technology which can be used to create isolated partitions helping to protect data and applications automatically –helping to keep them safe from insider threats as well as external cybercriminals. Emperor II provides workload isolation through logical partitions certified at EAL5+. Emperor II provides encryption of data at rest without application change and with minimal performance overhead. And Emperor II uses the Crypto Express6S for trusted multi-tenant Hardware Security Module service designed for FIPS142 level 4.

The Emperor II delivers the performance and scale needed to address today's business demands. The Emperor II has up to 170 cores using the fastest commercially available processor (5.2GHz). Emperor II offers dedicated I/O processors to enable data to be moved fast without impacting performance. And Emperor II delivers industry-leading Java performance that runs applications up to 50% faster than on x86 alternatives.

LinuxONE supports a wealth of new open sources software products such as Go, Python, Scala, Node.js, Docker, Spark, MongoDB, PostgreSQL, and MariaDB. Vertical scale allows Emperor II to scale up to 2 million Docker containers in a single system or provide support for 17TB MongoDB databases.

What are the key benefits of IBM Secure Service Containers?

IBM Secure Service Containers are built on IBM Z logical partition (LPAR) technology, and protect data and applications against both internal and external threats. They do this by providing the ability to run the full application stack as an appliance inside a Secure Service Container, with 100% data encryption, zero system administrator access, and verification at load time.

Secure Service Containers have been used to provide the highly secure IBM Blockchain environment running on LinuxONE, and are now being extended to support containers.

Tell me about the IBM Secure Service Container beta and how I can get involved?

We invite clients and ISVs to join us as a sponsor user, partnering with us to co-create this technology. Users Can Participate in 2 Ways

- Observing: User is engaged in discussion with IBM team on offering Hills¹, observes and provides feedback on iterative design changes
- Hands-On: In addition to the “Observing” experience, users get access to hosted environment to try out early version of technology

The following website will provide more information about the beta and directions on how to apply for the program: <http://ibm.biz/sscbeta>.

Who is the new LinuxONE Emperor II relevant to?

IBM believes that the CIOs and CTOs of enterprise white space customers, looking for a more secure and scalable Linux platform for their data and applications will be interested in Emperor II.

Managed Service Providers and Cloud Service Providers who are looking to differentiate in the market by providing premium cloud services should consider Emperor II.

And developers of open source software, looking for a faster and more scalable platform for their applications will find the flexibility of Emperor II can fit their needs very well.

What are the key workloads for IBM LinuxONE?

There are three key workloads for IBM LinuxONE:

- Data serving – highly-engineered for performance, scale and security
- Premium cloud services – differentiated by scalability and security
- Blockchain – highly secure platform using Secure Service Containers

Can you give examples of clients using IBM LinuxONE?

[The Met Office](#) migrated its meteorological databases from x86 systems to a resilient, high-performance and scalable IBM LinuxONE platform—ensuring it can handle massive peaks in requests.

¹ <https://www.ibm.com/design/thinking/>

[Huaxia Express](#) has transformed travel for millions of passengers with seamless 24/7 e-ticketing on IBM LinuxONE

[The Plastic Bank](#) is deploying Blockchain to reduce ocean plastic and help tackle global poverty. They are hosted by Cognition Foundry, a Managed Services Provider using IBM LinuxONE.

What kind of ecosystem is there for IBM LinuxONE?

IBM LinuxONE supports leading open source and commercial infrastructure and application software, such as

- Linux Distributions such as Red Hat, SUSE and Ubuntu
- Virtualization software such as z/VM[®] and KVM
- Blockchain software such as Hyperledger and IBM Blockchain Platform
- Databases such as Oracle, Db2[®], and MongoDB
- Container software such as Docker and Kubernetes
- Programming languages and runtimes such as Go, Node.js and Swift
- Cognitive software such as TensorFlow
- Industry software such as Temenos T24

Can you share some of the advantages or proof points you have for LinuxONE Emperor II?

- First to market with IBM Secure Service Containers, protecting against insider threats as well as external
- Up to 50 percent faster Java™ performance than x86
- Up to 2M Docker containers in a single system
- Up to 17TB MongoDB in a single system with better throughput than x86 and without sharding
- Instant scalability to billions of transactions any day of the year
- Chosen by Huaxia Express for transportation system in China for 1M users, and by SinfoniaRX to support 45M patients

Where can I find out more about this announcement?

Check out the [Emperor II Client highlights](#) with your customers:

Read [the Case Study](#): Plastic Bank and Cognition Foundry change the world

Review the key web pages:

- See all the latest announcements, blogs and information about IBM LinuxONE at www.ibm.com/linuxone/news
- LinuxONE home: <https://www.ibm.com/linuxone/>
- LinuxONE Emperor II product page (and tabs): <https://www.ibm.com/us-en/marketplace/linuxone-emperor-ii>

Learn more about the hardware with the [LinuxONE Emperor II Hardware FAQ](#)



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