

# Modernize your business-critical applications with IBM Semeru Runtime Certified Edition for z/OS

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An overview of the features and benefits of the Java programming language on the z/OS platform

## Build new and efficient, or modernize applications using no-charge license Java on z/OS

- Utilize a comprehensive Java SDK on the z/OS platform, with a vast pool of skilled Java developers
- Leverage IBM z Integrated Information Processors (zIIPs) to run eligible Java work.
- Leverage traditional IBM Z benefits: security, scalability, reliability, availability, and serviceability.
- Leverage the performance and capabilities in Java runtime and its Z hardware exploitation to accelerate Java applications

### Key Benefits



Skills



Cost  
savings



Security



Reliability



High-  
Performing

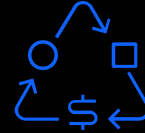
## Use Java for digital transformation and in-place application modernization

IBM Semeru Runtime Certified Edition for z/OS is designed to provide you with the capability to:



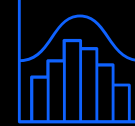
### Agility

- Test and deploy Java applications in a 64-bit environment.
- Leverage Java's abundance of APIs, libraries and frameworks supported by a strong community.
- Assemble custom runtime images with jlink tool
- Use enhanced monitoring and diagnostics.



### Cost / Efficiency

- Leverage IBM z Integrated Information Processors (zIIPs) to run eligible Java work.
- Realize general performance improvements in Java runtime for improved application throughput, startup and ramp-up.
- Enable your Java applications to exploit the IBM z15 and z14 instruction sets.



### Productivity

- Use valuable z/OS functions such as a Batch Launcher for running Java applications as batch jobs or started tasks, and direct access to traditional z/OS data and key z/OS system services (SMF, Catalog Search, Logstreams, System Console, WLM Services, among others).
- Leverage OpenJCEPlus security provider offering optimized performance with exploitation of cryptographic hardware on IBM Z®

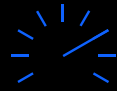
# Leverage new Java language features and run Java applications on z/OS efficiently

IBM Semeru Runtime Certified Edition for z/OS is certified to be compliant with the Java Standard Edition APIs



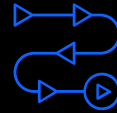
## Strategy / Modularity

- Comprehensive Java SDK for z/OS
- Java modularity enables developers to build Java applications on any platform and deploy them on z/OS
- Community OpenJDK implementation of class libraries with new OpenJ9 virtual machine



## Speed

- Pause-less GC capability to help reduce GC pause-times, leveraging the Guarded Storage Facility
- Data Access Accelerator library providing efficient Binary Coded Decimal operators that exploit the IBM Z Packed and Vector Packed instructions.



## Efficiency

- Transparent exploitation of Hardware Transactional Memory for synchronized regions within multi-threaded application code.
- Automated JVM adaptation for changing system resource and capacity, optimized for System Recovery Boost for z/OS by auto-scaling of Garbage Collection and JIT compilation threads



## Integration

- Integration with z/OS middleware.

## Accelerate your efforts in application modernization and journey to cloud

- Explore the advantage of running Java on z/OS
- View system requirements and prepare for installation
- Follow the Java tutorials and evaluate your needs
- Contact IBM and explore implementation options for your organization



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### Product page

Product page

[Link](#)

### Technical information

IBM Documentation

[Link](#)

Java tutorials

[Link](#)

### Other useful information

IBM Z and LinuxONE community (Java)

[Link](#)

OpenJDK

[Link](#)

# Thank you

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