

Overview

Java Remote Method Invocation (Java RMI) lets you create distributed applications in Java.

RMI allows an object to invoke methods of remote Java objects running on another Java Virtual Machine (JVM), possibly on different hosts. RMI uses object serialization to marshal and unmarshal parameters, and doesn't truncate types, supporting true object-oriented polymorphism.

RMI Security Recommendations

Follow these recommendations to improve the security of your RMI applications.

- See [Serialization Filtering](#) and follow the best practices there to protect your applications.
- Follow [Secure Coding Guidelines for Java SE](#).
- Ensure that the value of the `java.rmi.server.useCodebaseOnly` property is `True`. By default, the `java.rmi.server.useCodebaseOnly` property is set to `True`. If you set this property to `False`, then remote code loading is enabled, which increases the level of security risk to the system.
- Run RMI over Secure Sockets Layer (SSL)/Transport Layer Security (TLS) and request authentication for both server and client. This is possible using custom socket factories. An application can export a remote object to use custom socket factories that create sockets of a desired type (for example, SSL sockets). Using this technique, an application can use SSL socket communication instead of the default socket communication. See the following:
 - [SslRMIClientSocketFactory](#) class
 - [SslRMIServerSocketFactory](#) class
 - [Java Secure Socket Extension \(JSSE\) Reference](#)

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