

# Spicing up JMX with Jolokia

Roland Huß  
ConSol\* Software





# Roland Huß

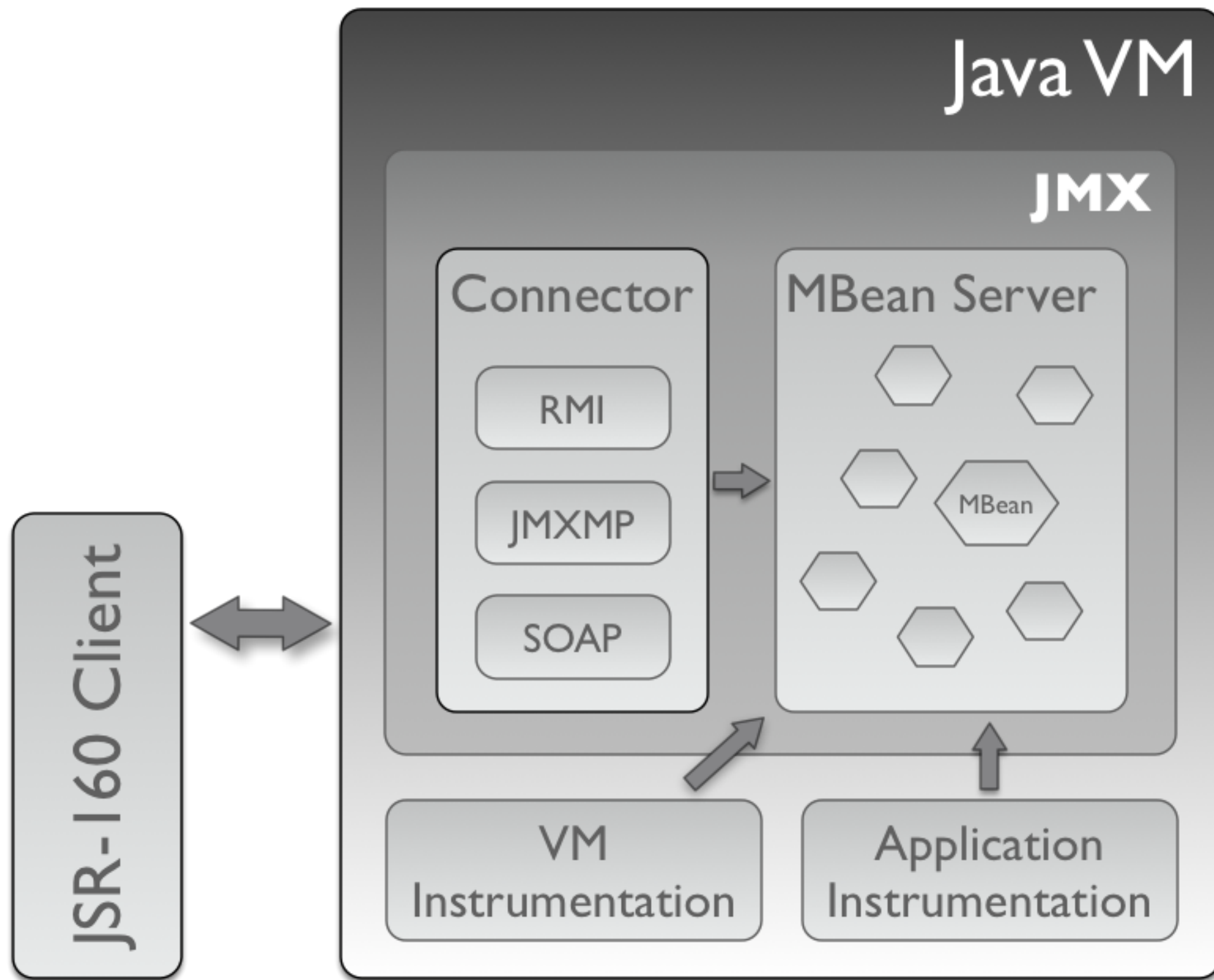
- Java Developer since ever
- working in Munich @ ConSol\*
- Open Source
  - ▶ Jolokia, Jmx4Perl and docker-maven-plugin
  - ▶ [www.jolokia.org](http://www.jolokia.org)
  - ▶ [labs.consol.de](http://labs.consol.de) & [rol4nd.de](http://rol4nd.de)
  - ▶ <https://github.com/rhuss>
- Chili Pepper Grower

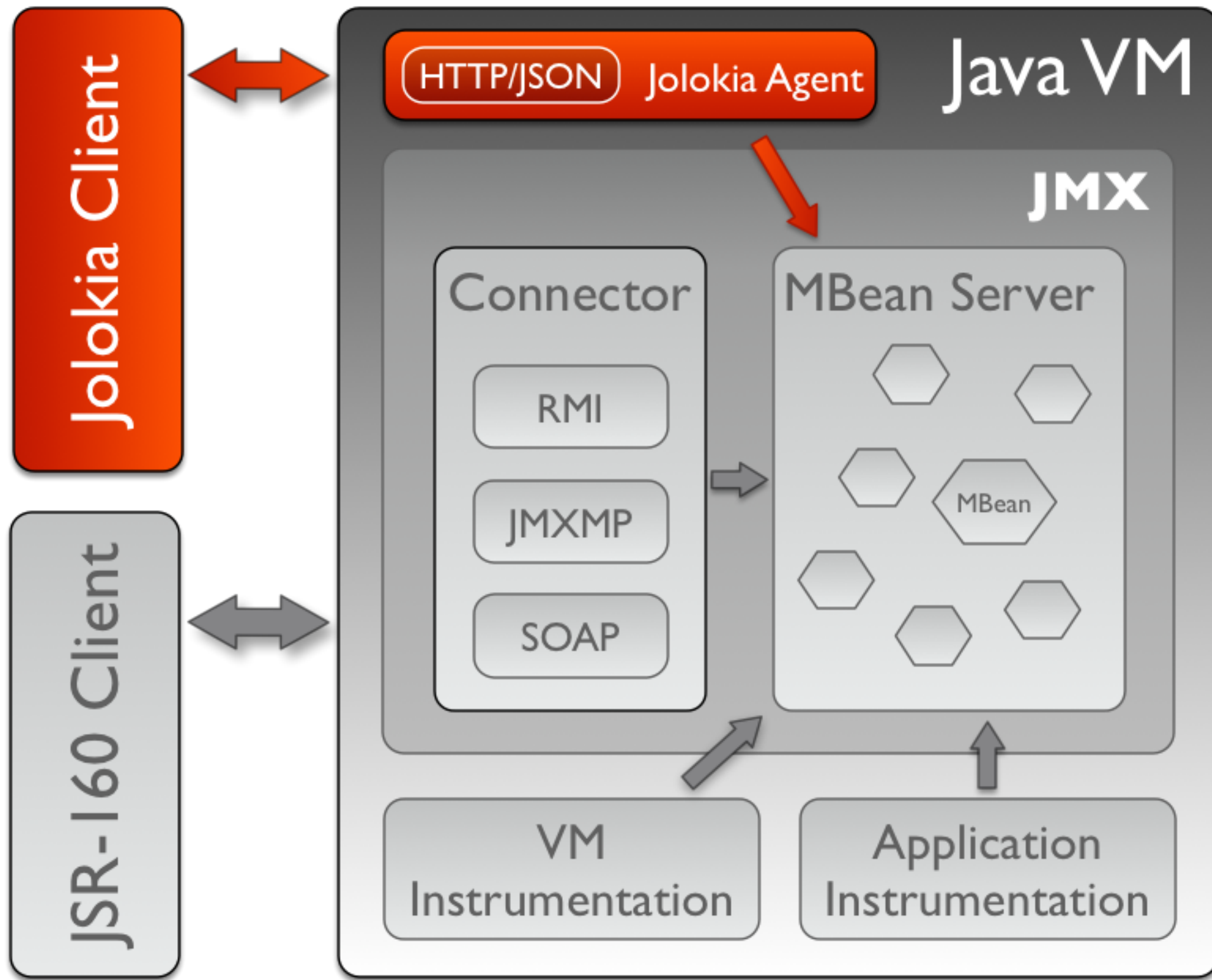




# JMX

- Java Management Extensions (JSR-3, 2000)
  - Management: Configuration, Lifecycle Operations, ...
  - Monitoring: Memory Size, Connection Pools ....
- Available in every JVM
- JSR-160: JMX Remote API
  - Java only
  - Crossing firewall boundaries is very hard (RMI)
  - Security is "all-or-nothing"







TM



# Agents

JEE

OSGi

Mule

JVM



# Who uses Jolokia ?

- hawt.io
  - ▶ General purpose HTML5 Web Console
- ActiveMQ
  - ▶ Leading Open Source Message Broker
- fabric8
  - ▶ Open Source Integration Platform (part of JBoss Fuse)
- Spring XD
  - ▶ System for development of Big Data applications
- Spring Boot





# Request Types

<b>read</b>	Reading of attributes
<b>write</b>	Writing of attributes
<b>exec</b>	Execution of operations
<b>search</b>	MBean search
<b>list</b>	MBean metadata
<b>version</b>	Version and server information





# Demo



# What else ?

- Bulk Requests
- JSR-160 Proxy
- Fine grained security via XML policies
- Tooling with Jmx4Perl
- Client-Libs:
  - ▶ JavaScript, Java, Perl (maintained by Jolokia & Jmx4Perl)
  - ▶ Python, node.js, ... (others)



# Jolokia 2.0

- JMX notifications
  - ▶ Polling
  - ▶ (WebSocket, Server Side Events, JMS,...)
- Role based security
- Modularization and Service Hooks
  - ▶ RequestDispatcher (JMX, Spring, ZooKeeper, JNDI, ....)
  - ▶ JSON serializer
  - ▶ Restrictor



# Demo

# Questions ?



<http://www.jolokia.org>