PHP/JAVA Bridge

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Outline

* What is PHP/Java bridge

* Advantages

* Working Schema

* How it works

* Installation guide

* Demo

What is PHP/Java Bridge

* It is a streaming, XML-based network protocol

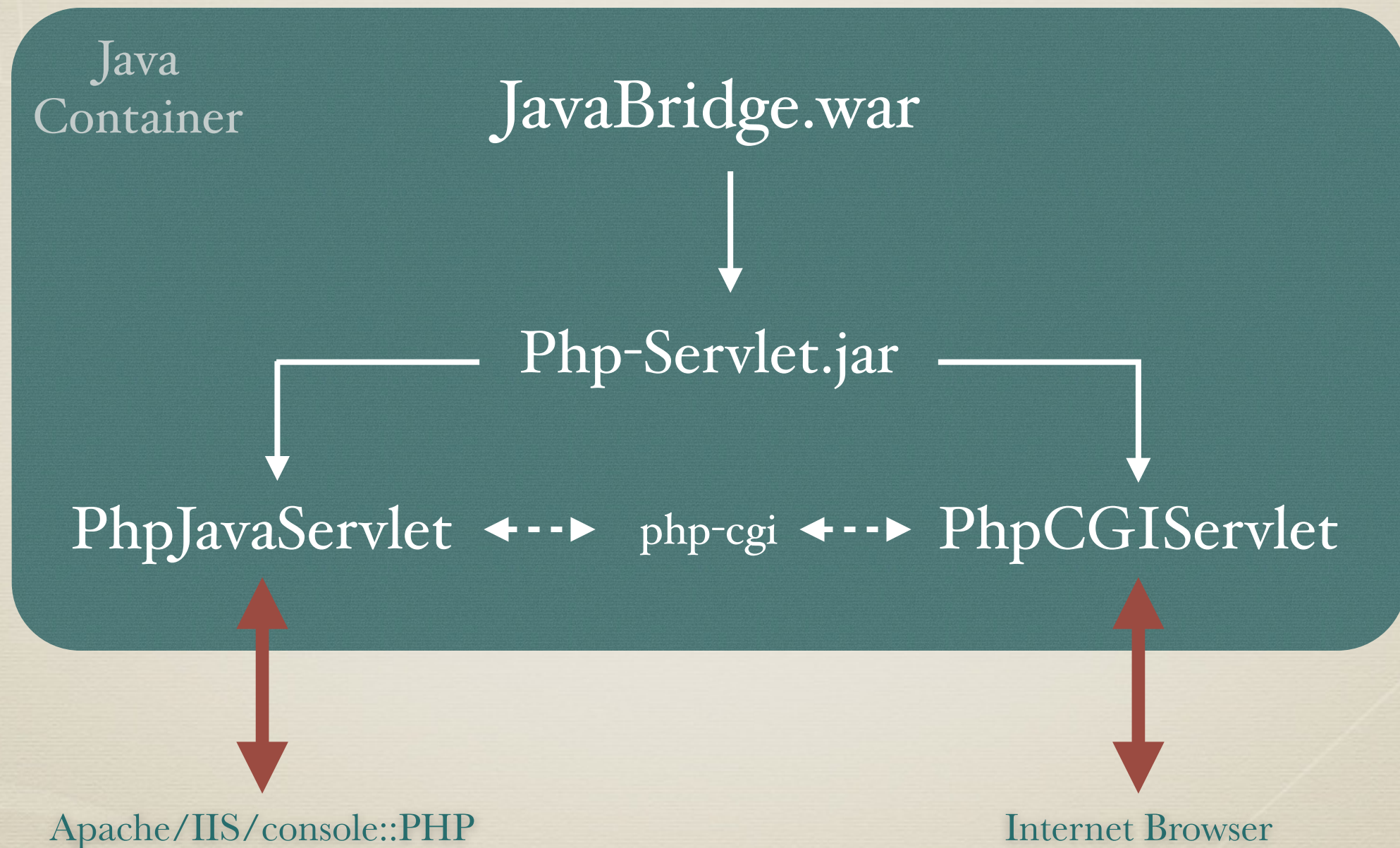* Connects a native script engine with a java virtual machine

Advantages

* It is up to 50 times faster than local RPC via SOAP

* Requires less resources on the web server side

* It is faster and more reliable than direct communication via JAVA Native Interface

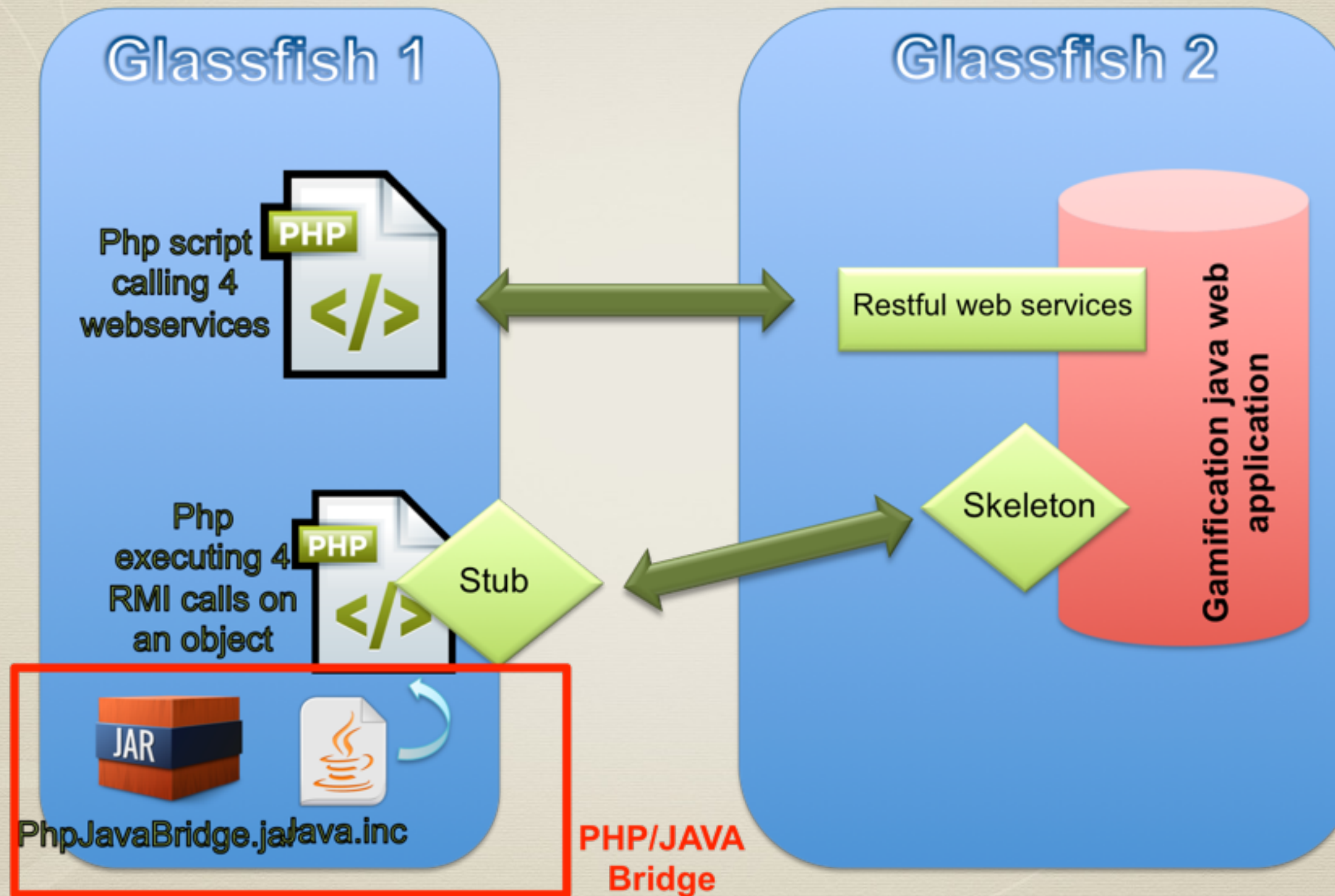* Does not require any additional components to invoke Java procedures from PHP

Working Schema

PHP
Script

Procedure invocation using
"continuation passing"
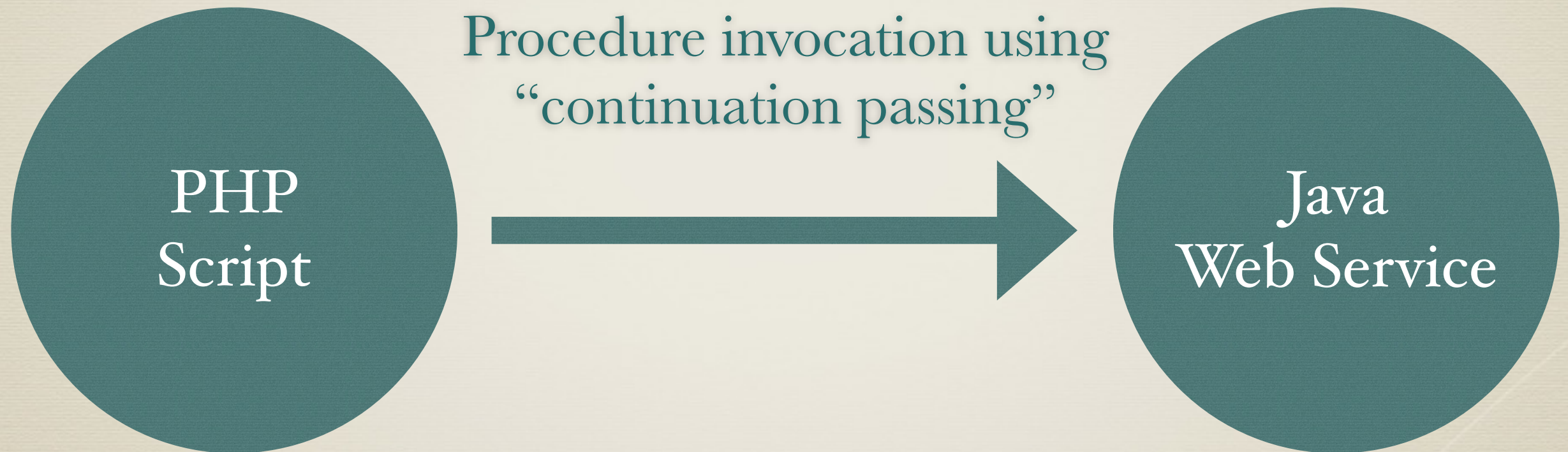
Java
Web Service

How it works

Setup

Setup

* On the client side:

    * The client PHP application must be deployed on a JAVA web application server with PHP support.

    * PHPJavaBridge.jar should be deployed

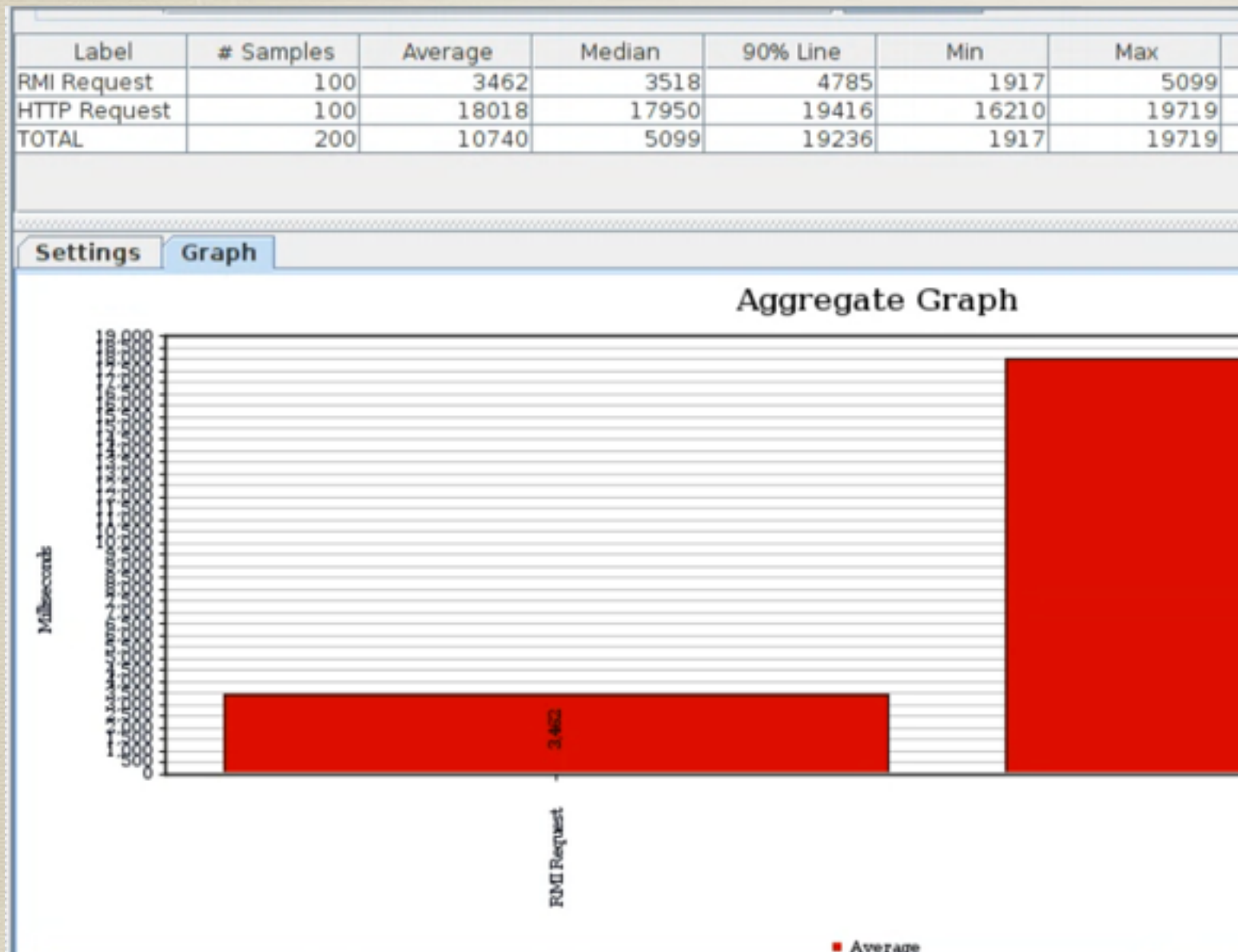   * JAVA.inc should be included in all PHP script files to use JAVA function seamlessly.

* On the server side:

    * The JAVA web application should be deployed

    * The application should be accessed via REST services OR via RMI calls directly on the beans

Test Environment

* Two virtual machines (Ubuntu 12.04 - 1024Mb RAM) one with Apache/PHP and the other with Glassfish.

* Tests were done from the first machine using JMeter.

* 100 user simultaneously use each method (REST - Bridge)

* Each user make 4 requests successively to retrieve all users from 4 different applications

Test Results

Label	# Samples	Average	Median	90% Line	Min	Max
RMI Request	100	3462	3518	4785	1917	5099
HTTP Request	100	18018	17950	19416	16210	19719
TOTAL	200	10740	5099	19236	1917	19719

Settings | **Graph**

Aggregate Graph

Milliseconds

3462

RMI Request

■ Average

* RMI requests have an average of 3.5 s to return

* REST calls respond within 18s

* RMI is 5 time faster than standard REST calls

Questions