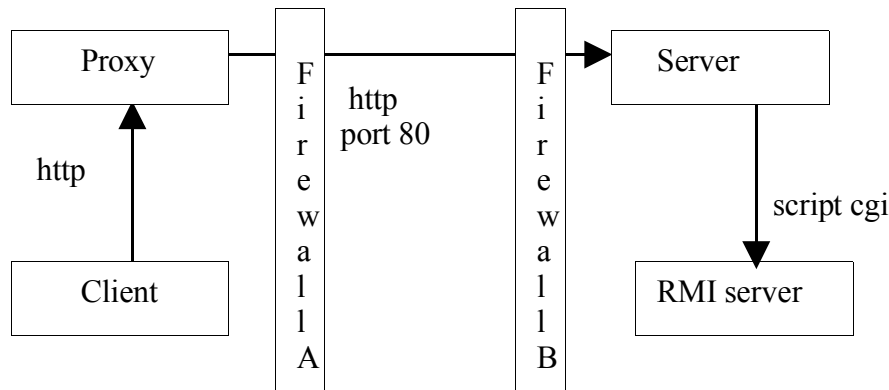# Connection by means of a proxy behind Firewall using a web server with java-rmi.cgi script in the server

Connection to the server using the HTTP protocol by means of a Proxy that allows us to establish a connection with the web server that houses the script cgi. The client must be placed behind a Firewall. The Firewall will not allow a direct connection with the rmi server. The server itself will have to execute a webserver and a firewall that only permits input connections to port 80.

For this setting, the following test cases are presented:

- Three computers with Linux as their operating system, one of them executing the server + registry (application RemoteCalculatorServer), a web server listening on port 80 and a firewall that only permits input connections to port 80.Other machine executing the client (RemotecalculatorClient) and other acting as firewall and proxy. A test will be performed with the server being on and it should work without any problems.
- On the other hand, we will try to make a connection with the server, being this off. In this case, the client must fail.
- Finally, we will test if the inoperability with the package provided by SUN does not work.

Execution Case 1

Requirements

Three computers that have Linux as their operating system
JDK 1.5.0 of SUN
Computer N° 1 must execute RemoteCalculatorServer, a firewall (it will only permit connections to port 80) and a web Server with a cgi script provided by the jdk of Sun.
Computer N° 2 must execute RemoteCalculatorClient
Computer N° 3 must execute a proxy and a firewall

Output computer N° 1 (RemoteCalculatorServer)

Mar 10, 2006 9:29:15 AM ar.org.fitc.test.rmi.integration.RemoteCalculatorServer main

INFO: RemoteCalculator Server Ready.
Mar 10, 2006 9:30:56 AM ar.org.fitc.rmi.transport.RMIServerSocket accept
INFO: Socket accepted Socket[addr=/10.100.2.246,port=60679,localport=1099]
Mar 10, 2006 9:30:57 AM ar.org.fitc.rmi.transport.RMIServerSocket accept
INFO: Socket accepted Socket[addr=/10.100.2.246,port=43257,localport=1099]
Mar 10, 2006 9:30:57 AM ar.org.fitc.rmi.transport.RMIServerSocket accept
INFO: Socket accepted Socket[addr=/10.100.2.246,port=52406,localport=1099]
Mar 10, 2006 9:30:57 AM ar.org.fitc.rmi.transport.RMIServerSocket accept
INFO: Socket accepted Socket[addr=/10.100.2.246,port=42638,localport=1099]
Matrix A entered from 10.100.2.246

[9, 2]
[6, 4]

Mar 10, 2006 9:30:57 AM ar.org.fitc.rmi.transport.RMIServerSocket accept
INFO: Socket accepted Socket[addr=/10.100.2.246,port=48349,localport=1099]
Matrix B entered from 10.100.2.246
[1, 4]
[1, 5]

Mar 10, 2006 9:30:57 AM ar.org.fitc.rmi.transport.RMIServerSocket accept
INFO: Socket accepted Socket[addr=/10.100.2.246,port=43967,localport=1099]
multiply Matrix called from 10.100.2.246
Result Matrix (multiply)
[11, 46]
[10, 44]

Mar 10, 2006 9:30:58 AM ar.org.fitc.rmi.transport.RMIServerSocket accept
INFO: Socket accepted Socket[addr=/10.100.2.246,port=54236,localport=1099]
multiply Matrix called from 10.100.2.246
Result Matrix (multiply)
[11, 46]
[10, 44]

Mar 10, 2006 9:30:58 AM ar.org.fitc.rmi.transport.RMIServerSocket accept
INFO: Socket accepted Socket[addr=/10.100.2.246,port=60578,localport=1099]
add Matrix called from 10.100.2.246
Result Matrix (add)
[10, 6]
[7, 9]

Mar 10, 2006 9:30:58 AM ar.org.fitc.rmi.transport.RMIServerSocket accept
INFO: Socket accepted Socket[addr=/10.100.2.246,port=37226,localport=1099]
add Matrix called from 10.100.2.246
Result Matrix (add)
[10, 6]
[7, 9]

Mar 10, 2006 9:30:58 AM ar.org.fitc.rmi.transport.RMIServerSocket accept
INFO: Socket accepted Socket[addr=/10.100.2.246,port=57771,localport=1099]
Vector A entered from 10.100.2.246
[50.21, 2000.125, 196.15, 36.95]

Mar 10, 2006 9:30:58 AM ar.org.fitc.rmi.transport.RMIServerSocket accept
INFO: Socket accepted Socket[addr=/10.100.2.246,port=46889,localport=1099]
get Standard Deviation and Average called from 10.100.2.246
Standard Deviation: 955.5700453863042
Average: 570.85875
Mar 10, 2006 9:30:59 AM ar.org.fitc.rmi.transport.RMIServerSocket accept
INFO: Socket accepted Socket[addr=/10.100.2.246,port=38312,localport=1099]
get Standard Deviation and Average called from 10.100.2.246
Standard Deviation: 955.5700453863042
Average: 570.85875

Output computer N° 2 (RemoteCalculatorClient)

Mar 10, 2006 9:04:45 AM ar.org.fitc.test.rmi.integration.RemoteCalculatorClient main
INFO: RemoteCalculatorClient locating RMI registry on remote host "10.100.2.246".
Mar 10, 2006 9:04:45 AM ar.org.fitc.test.rmi.integration.RemoteCalculatorClient main
INFO: RemoteCalculatorClient looking up service "RemoteCalculator".
Mar 10, 2006 9:04:45 AM ar.org.fitc.rmi.transport.ClientProtocolHandler writeHandshake
INFO: Writing handshake
Mar 10, 2006 9:05:57 AM ar.org.fitc.rmi.transport.ClientProtocolHandler writeHandshake
INFO: Writing handshake

Mar 10, 2006 9:05:57 AM ar.org.fitc.rmi.transport.ClientProtocolHandler writeHandshake
INFO: Writing handshake
Mar 10, 2006 9:05:57 AM ar.org.fitc.rmi.transport.ClientProtocolHandler writeHandshake
INFO: Writing handshake
Mar 10, 2006 9:05:58 AM ar.org.fitc.rmi.transport.ClientProtocolHandler writeHandshake
INFO: Writing handshake
Mar 10, 2006 9:05:58 AM ar.org.fitc.rmi.transport.ClientProtocolHandler writeHandshake
INFO: Writing handshake
Matrix A
[9, 2]
[6, 4]

Matrix B
[1, 4]
[1, 5]

Result Matrix (multiply)
[11, 46]
Mar 10, 2006 9:05:58 AM ar.org.fitc.rmi.transport.ClientProtocolHandler writeHandshake
INFO: Writing handshake
[10, 44]

Result Matrix (add)
Mar 10, 2006 9:05:58 AM ar.org.fitc.rmi.transport.ClientProtocolHandler writeHandshake
INFO: Writing handshake
[10, 6]
Mar 10, 2006 9:05:58 AM ar.org.fitc.rmi.transport.ClientProtocolHandler writeHandshake
INFO: Writing handshake
[7, 9]

Vector
Mar 10, 2006 9:05:59 AM ar.org.fitc.rmi.transport.ClientProtocolHandler writeHandshake
INFO: Writing handshake
[50.21, 2000.125, 196.15, 36.95]

Mar 10, 2006 9:05:59 AM ar.org.fitc.rmi.transport.ClientProtocolHandler writeHandshake
INFO: Writing handshake
Standard Deviation: 955.5700453863042
Mar 10, 2006 9:05:59 AM ar.org.fitc.rmi.transport.ClientProtocolHandler writeHandshake
INFO: Writing handshake
Average: 570.85875

Salida Maquina 1 (RemoteHashMapServer)

Mar 10, 2006 10:32:34 AM ar.org.fitc.test.rmi.integration.RemoteHashServer main
INFO: RemoteMapServer creating a local RMI registry on the default port.
Mar 10, 2006 10:32:34 AM ar.org.fitc.test.rmi.integration.RemoteHashServer main
INFO: RemoteMapServer creating local object and remote adapter.
Mar 10, 2006 10:32:34 AM ar.org.fitc.test.rmi.integration.RemoteHashServer main
INFO: RemoteMapServer publishing service "RemoteHashMap" in local registry.
Mar 10, 2006 10:32:34 AM ar.org.fitc.test.rmi.integration.RemoteHashServer main
INFO: Published RemoteMap as service "RemoteHashMap". Ready.
Mar 10, 2006 10:33:20 AM ar.org.fitc.rmi.transport.RMIServerSocket accept
INFO: Socket accepted Socket[addr=/10.100.2.246,port=51464,localport=1099]

Mar 10, 2006 10:33:20 AM ar.org.fitc.rmi.transport.RMIServerSocket accept
INFO: Socket accepted Socket[addr=/10.100.2.246,port=54014,localport=1099]
Mar 10, 2006 10:33:21 AM ar.org.fitc.rmi.transport.RMIServerSocket accept
INFO: Socket accepted Socket[addr=/10.100.2.246,port=36494,localport=1099]
Internal HashMap Status... Timestamp: 1141997601010
get() called 0 time(s)..
put() called 1 time(s)
Mar 10, 2006 10:33:21 AM ar.org.fitc.rmi.transport.RMIServerSocket accept
INFO: Socket accepted Socket[addr=/10.100.2.246,port=55876,localport=1099]
Mar 10, 2006 10:33:21 AM ar.org.fitc.rmi.transport.RMIServerSocket accept
INFO: Socket accepted Socket[addr=/10.100.2.246,port=51366,localport=1099]
Internal HashMap Status... Timestamp: 1141997601245
get() called 0 time(s)..
put() called 2 time(s)
Mar 10, 2006 10:33:21 AM ar.org.fitc.rmi.transport.RMIServerSocket accept
INFO: Socket accepted Socket[addr=/10.100.2.246,port=56031,localport=1099]
Internal HashMap Status... Timestamp: 1141997601427
get() called 0 time(s)..
put() called 3 time(s)
Mar 10, 2006 10:33:21 AM ar.org.fitc.rmi.transport.RMIServerSocket accept
INFO: Socket accepted Socket[addr=/10.100.2.246,port=52385,localport=1099]
Internal HashMap Status... Timestamp: 1141997601649
get() called 0 time(s)..
put() called 4 time(s)
Mar 10, 2006 10:33:21 AM ar.org.fitc.rmi.transport.RMIServerSocket accept
INFO: Socket accepted Socket[addr=/10.100.2.246,port=42131,localport=1099]
Internal HashMap Status... Timestamp: 1141997601887
get() called 0 time(s)..
put() called 5 time(s)
Mar 10, 2006 10:33:22 AM ar.org.fitc.rmi.transport.RMIServerSocket accept
INFO: Socket accepted Socket[addr=/10.100.2.246,port=50235,localport=1099]
Internal HashMap Status... Timestamp: 1141997602065
get() called 0 time(s)..
put() called 6 time(s)
Mar 10, 2006 10:33:22 AM ar.org.fitc.rmi.transport.RMIServerSocket accept
INFO: Socket accepted Socket[addr=/10.100.2.246,port=56128,localport=1099]
Internal HashMap Status... Timestamp: 1141997602271
get() called 0 time(s)..
put() called 7 time(s)
Mar 10, 2006 10:33:22 AM ar.org.fitc.rmi.transport.RMIServerSocket accept
INFO: Socket accepted Socket[addr=/10.100.2.246,port=40053,localport=1099]
Mar 10, 2006 10:33:22 AM ar.org.fitc.rmi.transport.RMIServerSocket accept
INFO: Socket accepted Socket[addr=/10.100.2.246,port=34863,localport=1099]
Internal HashMap Status... Timestamp: 1141997602663
get() called 1 time(s)..
put() called 7 time(s)
Mar 10, 2006 10:33:22 AM ar.org.fitc.rmi.transport.RMIServerSocket accept
INFO: Socket accepted Socket[addr=/10.100.2.246,port=49481,localport=1099]
Internal HashMap Status... Timestamp: 1141997602888
get() called 2 time(s)..
put() called 7 time(s)
Mar 10, 2006 10:33:23 AM ar.org.fitc.rmi.transport.RMIServerSocket accept
INFO: Socket accepted Socket[addr=/10.100.2.246,port=36917,localport=1099]
Internal HashMap Status... Timestamp: 1141997603089

get() called 3 time(s)..
put() called 7 time(s)
Mar 10, 2006 10:33:23 AM ar.org.fitc.rmi.transport.RMIServerSocket accept
INFO: Socket accepted Socket[addr=/10.100.2.246,port=52982,localport=1099]
Internal HashMap Status... Timestamp: 1141997603300
get() called 4 time(s)..
put() called 7 time(s)
Mar 10, 2006 10:33:23 AM ar.org.fitc.rmi.transport.RMIServerSocket accept
INFO: Socket accepted Socket[addr=/10.100.2.246,port=49777,localport=1099]
Internal HashMap Status... Timestamp: 1141997603495
get() called 5 time(s)..
put() called 7 time(s)
Mar 10, 2006 10:33:23 AM ar.org.fitc.rmi.transport.RMIServerSocket accept
INFO: Socket accepted Socket[addr=/10.100.2.246,port=37841,localport=1099]
Internal HashMap Status... Timestamp: 1141997603685
get() called 6 time(s)..
put() called 7 time(s)
Mar 10, 2006 10:33:23 AM ar.org.fitc.rmi.transport.RMIServerSocket accept
INFO: Socket accepted Socket[addr=/10.100.2.246,port=44050,localport=1099]
Internal HashMap Status... Timestamp: 1141997603868
get() called 7 time(s)..
put() called 7 time(s)

Output computer N° 2 (RemoteHashMapClient)

RemoteMapClient locating RMI registry on remote host "10.100.2.246".
Mar 10, 2006 10:08:20 AM ar.org.fitc.test.rmi.integration.RemoteHashClient main
INFO: RemoteMapClient looking up service "RemoteHashMap".
Mar 10, 2006 10:08:20 AM ar.org.fitc.rmi.transport.ClientProtocolHandler writeHandshake
INFO: Writing handshake
Mar 10, 2006 10:08:21 AM ar.org.fitc.rmi.transport.ClientProtocolHandler writeHandshake
INFO: Writing handshake
Mar 10, 2006 10:08:21 AM ar.org.fitc.rmi.transport.ClientProtocolHandler writeHandshake
INFO: Writing handshake
Mar 10, 2006 10:08:21 AM ar.org.fitc.test.rmi.integration.RemoteHashClient putCall
INFO: RemoteMapClient inserting on 10.100.2.246 key=one, value=pride
Mar 10, 2006 10:08:21 AM ar.org.fitc.rmi.transport.ClientProtocolHandler writeHandshake
INFO: Writing handshake
pride
envy
Mar 10, 2006 10:08:21 AM ar.org.fitc.test.rmi.integration.RemoteHashClient putCall
INFO: RemoteMapClient inserting on 10.100.2.246 key=two, value=envy
Mar 10, 2006 10:08:21 AM ar.org.fitc.rmi.transport.ClientProtocolHandler writeHandshake
INFO: Writing handshake
gluttony
Mar 10, 2006 10:08:21 AM ar.org.fitc.test.rmi.integration.RemoteHashClient putCall
INFO: RemoteMapClient inserting on 10.100.2.246 key=three, value=gluttony
Mar 10, 2006 10:08:21 AM ar.org.fitc.rmi.transport.ClientProtocolHandler writeHandshake
INFO: Writing handshake
lust
Mar 10, 2006 10:08:22 AM ar.org.fitc.test.rmi.integration.RemoteHashClient putCall
INFO: RemoteMapClient inserting on 10.100.2.246 key=four, value=lust
Mar 10, 2006 10:08:22 AM ar.org.fitc.rmi.transport.ClientProtocolHandler writeHandshake
INFO: Writing handshake
anger
Mar 10, 2006 10:08:22 AM ar.org.fitc.test.rmi.integration.RemoteHashClient putCall
INFO: RemoteMapClient inserting on 10.100.2.246 key=five, value=anger
Mar 10, 2006 10:08:22 AM ar.org.fitc.rmi.transport.ClientProtocolHandler writeHandshake
INFO: Writing handshake
greed
Mar 10, 2006 10:08:22 AM ar.org.fitc.test.rmi.integration.RemoteHashClient putCall

<span style="color:red">
INFO: RemoteMapClient inserting on 10.100.2.246 key=six, value=greed
Mar 10, 2006 10:08:22 AM ar.org.fitc.rmi.transport.ClientProtocolHandler writeHandshake
INFO: Writing handshake
sloth
Mar 10, 2006 10:08:22 AM ar.org.fitc.test.rmi.integration.RemoteHashClient putCall
INFO: RemoteMapClient inserting on 10.100.2.246 key=seven, value=sloth
Mar 10, 2006 10:08:22 AM ar.org.fitc.rmi.transport.ClientProtocolHandler writeHandshake
INFO: Writing handshake
RemoteMapClient HashMap successfully populated...
Mar 10, 2006 10:08:22 AM ar.org.fitc.rmi.transport.ClientProtocolHandler writeHandshake
INFO: Writing handshake
Mar 10, 2006 10:08:23 AM ar.org.fitc.test.rmi.integration.RemoteHashClient sizeCall
INFO: RemoteMapClient HashMap size: 7
Mar 10, 2006 10:08:23 AM ar.org.fitc.test.rmi.integration.RemoteHashClient main
INFO: RemoteMapClient HashMap size correct...
Mar 10, 2006 10:08:23 AM ar.org.fitc.rmi.transport.ClientProtocolHandler writeHandshake
INFO: Writing handshake
Mar 10, 2006 10:08:23 AM ar.org.fitc.test.rmi.integration.RemoteHashClient getCall
INFO: RemoteMapClient found at 10.100.2.246, value=pride
Mar 10, 2006 10:08:23 AM ar.org.fitc.rmi.transport.ClientProtocolHandler writeHandshake
INFO: Writing handshake
Mar 10, 2006 10:08:23 AM ar.org.fitc.test.rmi.integration.RemoteHashClient getCall
INFO: RemoteMapClient found at 10.100.2.246, value=envy
Mar 10, 2006 10:08:23 AM ar.org.fitc.rmi.transport.ClientProtocolHandler writeHandshake
INFO: Writing handshake
Mar 10, 2006 10:08:23 AM ar.org.fitc.test.rmi.integration.RemoteHashClient getCall
INFO: RemoteMapClient found at 10.100.2.246, value=gluttony
Mar 10, 2006 10:08:23 AM ar.org.fitc.rmi.transport.ClientProtocolHandler writeHandshake
INFO: Writing handshake
Mar 10, 2006 10:08:23 AM ar.org.fitc.test.rmi.integration.RemoteHashClient getCall
INFO: RemoteMapClient found at 10.100.2.246, value=lust
Mar 10, 2006 10:08:23 AM ar.org.fitc.rmi.transport.ClientProtocolHandler writeHandshake
INFO: Writing handshake
Mar 10, 2006 10:08:24 AM ar.org.fitc.test.rmi.integration.RemoteHashClient getCall
INFO: RemoteMapClient found at 10.100.2.246, value=anger
Mar 10, 2006 10:08:24 AM ar.org.fitc.rmi.transport.ClientProtocolHandler writeHandshake
INFO: Writing handshake
Mar 10, 2006 10:08:24 AM ar.org.fitc.test.rmi.integration.RemoteHashClient getCall
INFO: RemoteMapClient found at 10.100.2.246, value=greed
Mar 10, 2006 10:08:24 AM ar.org.fitc.rmi.transport.ClientProtocolHandler writeHandshake
INFO: Writing handshake
Mar 10, 2006 10:08:24 AM ar.org.fitc.test.rmi.integration.RemoteHashClient getCall
INFO: RemoteMapClient found at 10.100.2.246, value=sloth
Mar 10, 2006 10:08:24 AM ar.org.fitc.test.rmi.integration.RemoteHashClient main
INFO: RemoteMapClient HashMap check passed...

Execution case 2

Requirements
A computer with Linux as its operating system

The computer must execute RemoteCalculatorClient with the JDK 1.5.0 of SUN and ITC's RMI package.

Output Computer N° 1 (RemoteCalculatorClient)

Mar 10, 2006 10:16:07 AM ar.org.fitc.test.rmi.integration.RemoteCalculatorClient main
INFO: RemoteCalculatorClient locating RMI registry on remote host "10.100.2.246".
Mar 10, 2006 10:16:07 AM ar.org.fitc.test.rmi.integration.RemoteCalculatorClient main
INFO: RemoteCalculatorClient looking up service "RemoteCalculator".
Mar 10, 2006 10:16:07 AM ar.org.fitc.rmi.transport.ClientProtocolHandler writeHandshake

INFO: Writing handshake
java.lang.NullPointerException
    at ar.org.fitc.test.rmi.integration.RemoteCalculatorClient.main(RemoteCalculatorClient.java:48)
    Mar 10, 2006 10:16:07 AM ar.org.fitc.test.rmi.integration.RemoteCalculatorClient main
    INFO: RemoteCalculatorClient problem with RemoteCalculator, exception:
    java.lang.NullPointerException

Output Computer N° 1 (RemoteHashMapClient)

RemoteMapClient locating RMI registry on remote host "10.100.2.246".
Mar 10, 2006 10:17:34 AM ar.org.fitc.test.rmi.integration.RemoteHashClient main
INFO: RemoteMapClient looking up service "RemoteHashMap".
Mar 10, 2006 10:17:35 AM ar.org.fitc.rmi.transport.ClientProtocolHandler writeHandshake
INFO: Writing handshake
pride
Mar 10, 2006 10:17:35 AM ar.org.fitc.test.rmi.integration.RemoteHashClient putCall
INFO: RemoteMapClient inserting on 10.100.2.246 key=one, value=pride
Exception in thread "main" java.lang.NullPointerException
at ar.org.fitc.test.rmi.integration.RemoteHashClient.putCall(RemoteHashClient.java:111)
at ar.org.fitc.test.rmi.integration.RemoteHashClient.populateHashMap(RemoteHashClient.java:101)
at ar.org.fitc.test.rmi.integration.RemoteHashClient.main(RemoteHashClient.java:81)

Execution case 3
Requirements

Two computers with Linux as their operating system.

Computer N° 1 must execute RemoteCalculatorServer with Sun's JDK 1.5.0
Computer N° 2 must execute RemoteCalculatorClient with Sun's JDK 1.5.0 and ITC's RMI package.

Output Computer N° 1 (RemoteCalculatorServer)

Mar 10, 2006 10:52:14 AM ar.org.fitc.test.rmi.integration.RemoteCalculatorServer main
INFO: RemoteCalculator Server Ready.
Mar 10, 2006 10:52:31 AM ar.org.fitc.rmi.transport.RMIServerSocket accept
INFO: Socket accepted Socket[addr=/10.100.2.241,port=55946,localport=1099]

Output Computer N° 2 (RemoteCalculatorClient)

Mar 10, 2006 10:27:16 AM ar.org.fitc.test.rmi.integration.RemoteCalculatorClient main
INFO: RemoteCalculatorClient locating RMI registry on remote host "10.100.2.246".
Mar 10, 2006 10:27:16 AM sun.rmi.transport.tcp.TCPEndpoint <clinit>
FINE: main: localHostKnown = false, localHost = null
Mar 10, 2006 10:27:16 AM ar.org.fitc.test.rmi.integration.RemoteCalculatorClient main
INFO: RemoteCalculatorClient looking up service "RemoteCalculator".
Mar 10, 2006 10:27:16 AM sun.rmi.transport.tcp.TCPTransport <init>
FINE: main: Version = 2, ep = [:0]
Mar 10, 2006 10:27:16 AM sun.rmi.transport.tcp.TCPEndpoint getLocalEndpoint
FINE: main: created local endpoint for socket factory null on port 0
Mar 10, 2006 10:27:16 AM sun.rmi.transport.tcp.TCPChannel createConnection
FINE: main: create connection
Mar 10, 2006 10:27:16 AM sun.rmi.transport.tcp.TCPEndpoint newSocket
FINER: main: opening socket to [10.100.2.246:1099]
Mar 10, 2006 10:27:16 AM sun.rmi.transport.proxy.RMIMasterSocketFactory createSocket

FINE: main: host: 10.100.2.246, port: 1099
Mar 10, 2006 10:27:31 AM sun.rmi.transport.proxy.RMIMasterSocketFactory createSocket
FINE: main: direct socket connection failed:
java.net.NoRouteToHostException: connect timed out: 10.100.2.246
at sun.rmi.transport.proxy.RMIMasterSocketFactory.createSocket
(RMIMasterSocketFactory.java:187)
at sun.rmi.transport.tcp.TCPEndpoint.newSocket(TCPEndpoint.java:569)
at sun.rmi.transport.tcp.TCPChannel.createConnection(TCPChannel.java:185)
at sun.rmi.transport.tcp.TCPChannel.newConnection(TCPChannel.java:171)
at sun.rmi.server.UnicastRef.newCall(UnicastRef.java:306)
at sun.rmi.registry.RegistryImpl_Stub.lookup(Unknown Source)
at ar.org.fitc.test.rmi.integration.RemoteCalculatorClient.main(RemoteCalculatorClient.java:41)
Mar 10, 2006 10:27:31 AM sun.rmi.transport.proxy.RMIMasterSocketFactory createSocket
FINE: main: trying with factory: sun.rmi.transport.proxy.RMIHttpToPortSocketFactory@1d2068d
Mar 10, 2006 10:27:31 AM sun.rmi.transport.proxy.HttpSendSocket <init>
FINER: main: host = 10.100.2.246, port = 1099, url = http://10.100.2.246:1099/
Mar 10, 2006 10:27:31 AM sun.rmi.transport.proxy.HttpSendSocket readNotify
FINER: main: sending request and activating input stream
Mar 10, 2006 10:31:14 AM sun.rmi.transport.proxy.HttpSendSocket readNotify
FINE: main: failed to get input stream, exception:
java.io.IOException: Server returned HTTP response code: 503 for URL: http://10.100.2.246:1099/
at sun.net.www.protocol.http.HttpURLConnection.getInputStream(HttpURLConnection.java:1149)
at sun.rmi.transport.proxy.HttpSendSocket.readNotify(HttpSendSocket.java:154)
at sun.rmi.transport.proxy.HttpSendInputStream.read(HttpSendInputStream.java:51)
at sun.rmi.transport.proxy.RMIMasterSocketFactory.createSocket
(RMIMasterSocketFactory.java:228)
at sun.rmi.transport.tcp.TCPEndpoint.newSocket(TCPEndpoint.java:569)
at sun.rmi.transport.tcp.TCPChannel.createConnection(TCPChannel.java:185)
at sun.rmi.transport.tcp.TCPChannel.newConnection(TCPChannel.java:171)
at sun.rmi.server.UnicastRef.newCall(UnicastRef.java:306)
at sun.rmi.registry.RegistryImpl_Stub.lookup(Unknown Source)
at ar.org.fitc.test.rmi.integration.RemoteCalculatorClient.main(RemoteCalculatorClient.java:41)
Mar 10, 2006 10:31:14 AM sun.rmi.transport.proxy.RMIMasterSocketFactory createSocket
FINE: main: factoryfailed:
java.io.IOException: HTTP request failed
at sun.rmi.transport.proxy.HttpSendSocket.readNotify(HttpSendSocket.java:159)
at sun.rmi.transport.proxy.HttpSendInputStream.read(HttpSendInputStream.java:51)
at sun.rmi.transport.proxy.RMIMasterSocketFactory.createSocket
(RMIMasterSocketFactory.java:228)
at sun.rmi.transport.tcp.TCPEndpoint.newSocket(TCPEndpoint.java:569)
at sun.rmi.transport.tcp.TCPChannel.createConnection(TCPChannel.java:185)
at sun.rmi.transport.tcp.TCPChannel.newConnection(TCPChannel.java:171)
at sun.rmi.server.UnicastRef.newCall(UnicastRef.java:306)
at sun.rmi.registry.RegistryImpl_Stub.lookup(Unknown Source)
at ar.org.fitc.test.rmi.integration.RemoteCalculatorClient.main(RemoteCalculatorClient.java:41)
Mar 10, 2006 10:31:14 AM sun.rmi.transport.proxy.RMIMasterSocketFactory createSocket
FINE: main: trying with factory: sun.rmi.transport.proxy.RMIHttpToCGISocketFactory@1193779
Mar 10, 2006 10:31:14 AM sun.rmi.transport.proxy.HttpSendSocket <init>
FINER: main: host = 10.100.2.246, port = 1099, url = http://10.100.2.246/cgi-bin/java-
rmi.cgi?forward=1099
Mar 10, 2006 10:31:14 AM sun.rmi.transport.proxy.HttpSendSocket readNotify
FINER: main: sending request and activating input stream
Mar 10, 2006 10:31:15 AM sun.rmi.transport.proxy.HttpSendSocket readNotify
FINE: main: failed to get input stream, exception:

java.io.IOException: Server returned HTTP response code: 500 for URL: http://10.100.2.246/cgi-bin/java-rmi.cgi?forward=1099
at sun.net.www.protocol.http.HttpURLConnection.getInputStream(HttpURLConnection.java:1149)
at sun.rmi.transport.proxy.HttpSendSocket.readNotify(HttpSendSocket.java:154)
at sun.rmi.transport.proxy.HttpSendInputStream.read(HttpSendInputStream.java:51)
at sun.rmi.transport.proxy.RMIMasterSocketFactory.createSocket
(RMIMasterSocketFactory.java:228)
at sun.rmi.transport.tcp.TCPEndpoint.newSocket(TCPEndpoint.java:569)
at sun.rmi.transport.tcp.TCPChannel.createConnection(TCPChannel.java:185)
at sun.rmi.transport.tcp.TCPChannel.newConnection(TCPChannel.java:171)
at sun.rmi.server.UnicastRef.newCall(UnicastRef.java:306)
at sun.rmi.registry.RegistryImpl_Stub.lookup(Unknown Source)
at ar.org.fitc.test.rmi.integration.RemoteCalculatorClient.main(RemoteCalculatorClient.java:41)
Mar 10, 2006 10:31:15 AM sun.rmi.transport.proxy.RMIMasterSocketFactory createSocket
FINE: main: factory failed:
java.io.IOException: HTTP request failed
at sun.rmi.transport.proxy.HttpSendSocket.readNotify(HttpSendSocket.java:159)
at sun.rmi.transport.proxy.HttpSendInputStream.read(HttpSendInputStream.java:51)
at sun.rmi.transport.proxy.RMIMasterSocketFactory.createSocket
(RMIMasterSocketFactory.java:228)
at sun.rmi.transport.tcp.TCPEndpoint.newSocket(TCPEndpoint.java:569)
at sun.rmi.transport.tcp.TCPChannel.createConnection(TCPChannel.java:185)
at sun.rmi.transport.tcp.TCPChannel.newConnection(TCPChannel.java:171)
at sun.rmi.server.UnicastRef.newCall(UnicastRef.java:306)
at sun.rmi.registry.RegistryImpl_Stub.lookup(Unknown Source)
at ar.org.fitc.test.rmi.integration.RemoteCalculatorClient.main(RemoteCalculatorClient.java:41)
java.rmi.ConnectException: Connection refused to host: 10.100.2.246; nested exception is:
java.net.ConnectException: Connection timed out
at sun.rmi.transport.tcp.TCPEndpoint.newSocket(TCPEndpoint.java:574)
at sun.rmi.transport.tcp.TCPChannel.createConnection(TCPChannel.java:185)
at sun.rmi.transport.tcp.TCPChannel.newConnection(TCPChannel.java:171)
at sun.rmi.server.UnicastRef.newCall(UnicastRef.java:306)
at sun.rmi.registry.RegistryImpl_Stub.lookup(Unknown Source)
at ar.org.fitc.test.rmi.integration.RemoteCalculatorClient.main(RemoteCalculatorClient.java:41)
Caused by: java.net.ConnectException: Connection timed out
at sun.rmi.transport.proxy.RMIMasterSocketFactory.checkConnector
(RMIMasterSocketFactory.java:309)
at sun.rmi.transport.proxy.RMIMasterSocketFactory.createSocket
(RMIMasterSocketFactory.java:253)
at sun.rmi.transport.tcp.TCPEndpoint.newSocket(TCPEndpoint.java:569)
... 5 more
Mar 10, 2006 10:31:15 AM ar.org.fitc.test.rmi.integration.RemoteCalculatorClient main
INFO: RemoteCalculatorClient problem with RemoteCalculator, exception:
java.rmi.ConnectException: Connection refused to host: 10.100.2.246; nested exception is:
java.net.ConnectException: Connection timed out   pride

Output Computer N° 1 (RemoteHashMapServer)

Mar 10, 2006 10:43:48 AM ar.org.fitc.test.rmi.integration.RemoteHashServer main
INFO: RemoteMapServer creating a local RMI registry on the default port.
Mar 10, 2006 10:43:48 AM ar.org.fitc.test.rmi.integration.RemoteHashServer main
INFO: RemoteMapServer creating local object and remote adapter.
Mar 10, 2006 10:43:48 AM ar.org.fitc.test.rmi.integration.RemoteHashServer main
INFO: RemoteMapServer publishing service "RemoteHashMap" in local registry.
Mar 10, 2006 10:43:48 AM ar.org.fitc.test.rmi.integration.RemoteHashServer main

INFO: Published RemoteMap as service "RemoteHashMap". Ready.
Mar 10, 2006 10:44:37 AM ar.org.fitc.rmi.transport.RMIServerSocket accept
INFO: Socket accepted Socket[addr=/10.100.2.241,port=56581,localport=1099]

Output Computer N° 2 (RemoteHashMapClient)

RemoteMapClient locating RMI registry on remote host "10.100.2.246".
Mar 10, 2006 10:19:23 AM sun.rmi.transport.tcp.TCPEndpoint <clinit>
FINE: main: localHostKnown = false, localHost = null
Mar 10, 2006 10:19:23 AM ar.org.fitc.test.rmi.integration.RemoteHashClient main
INFO: RemoteMapClient looking up service "RemoteHashMap".
Mar 10, 2006 10:19:23 AM sun.rmi.transport.tcp.TCPTransport <init>
FINE: main: Version = 2, ep = [:0]
Mar 10, 2006 10:19:23 AM sun.rmi.transport.tcp.TCPEndpoint getLocalEndpoint
FINE: main: created local endpoint for socket factory null on port 0
Mar 10, 2006 10:19:23 AM sun.rmi.transport.tcp.TCPChannel createConnection
FINE: main: create connection
Mar 10, 2006 10:19:23 AM sun.rmi.transport.tcp.TCPEndpoint newSocket
FINER: main: opening socket to [10.100.2.246:1099]
Mar 10, 2006 10:19:23 AM sun.rmi.transport.proxy.RMIMasterSocketFactory createSocket
FINE: main: host: 10.100.2.246, port: 1099
Mar 10, 2006 10:19:38 AM sun.rmi.transport.proxy.RMIMasterSocketFactory createSocket
FINE: main: direct socket connection failed:
java.net.NoRouteToHostException: connect timed out: 10.100.2.246
at sun.rmi.transport.proxy.RMIMasterSocketFactory.createSocket(RMIMasterSocketFactory.java:187)
at sun.rmi.transport.tcp.TCPEndpoint.newSocket(TCPEndpoint.java:569)
at sun.rmi.transport.tcp.TCPChannel.createConnection(TCPChannel.java:185)
at sun.rmi.transport.tcp.TCPChannel.newConnection(TCPChannel.java:171)
at sun.rmi.server.UnicastRef.newCall(UnicastRef.java:306)
at sun.rmi.registry.RegistryImpl_Stub.lookup(Unknown Source)
at ar.org.fitc.test.rmi.integration.RemoteHashClient.main(RemoteHashClient.java:74)
Mar 10, 2006 10:19:38 AM sun.rmi.transport.proxy.RMIMasterSocketFactory createSocket
FINE: main: trying with factory: sun.rmi.transport.proxy.RMIHttpToPortSocketFactory@1ac2f9c
Mar 10, 2006 10:19:38 AM sun.rmi.transport.proxy.HttpSendSocket <init>
FINER: main: host = 10.100.2.246, port = 1099, url = http://10.100.2.246:1099/
Mar 10, 2006 10:19:38 AM sun.rmi.transport.proxy.HttpSendSocket readNotify
FINER: main: sending request and activating input stream
Mar 10, 2006 10:19:49 AM sun.rmi.transport.proxy.HttpSendSocket readNotify
FINE: main: failed to get input stream, exception:
java.io.IOException: Server returned HTTP response code: 503 for URL: http://10.100.2.246:1099/
at sun.net.www.protocol.http.HttpURLConnection.getInputStream(HttpURLConnection.java:1149)
at sun.rmi.transport.proxy.HttpSendSocket.readNotify(HttpSendSocket.java:154)
at sun.rmi.transport.proxy.HttpSendInputStream.read(HttpSendInputStream.java:51)
at sun.rmi.transport.proxy.RMIMasterSocketFactory.createSocket(RMIMasterSocketFactory.java:228)
at sun.rmi.transport.tcp.TCPEndpoint.newSocket(TCPEndpoint.java:569)
at sun.rmi.transport.tcp.TCPChannel.createConnection(TCPChannel.java:185)
at sun.rmi.transport.tcp.TCPChannel.newConnection(TCPChannel.java:171)
at sun.rmi.server.UnicastRef.newCall(UnicastRef.java:306)
at sun.rmi.registry.RegistryImpl_Stub.lookup(Unknown Source)
at ar.org.fitc.test.rmi.integration.RemoteHashClient.main(RemoteHashClient.java:74)
Mar 10, 2006 10:19:49 AM sun.rmi.transport.proxy.RMIMasterSocketFactory createSocket
FINE: main: factoryfailed:
java.io.IOException: HTTP request failed
at sun.rmi.transport.proxy.HttpSendSocket.readNotify(HttpSendSocket.java:159)
at sun.rmi.transport.proxy.HttpSendInputStream.read(HttpSendInputStream.java:51)
at sun.rmi.transport.proxy.RMIMasterSocketFactory.createSocket(RMIMasterSocketFactory.java:228)
at sun.rmi.transport.tcp.TCPEndpoint.newSocket(TCPEndpoint.java:569)
at sun.rmi.transport.tcp.TCPChannel.createConnection(TCPChannel.java:185)
at sun.rmi.transport.tcp.TCPChannel.newConnection(TCPChannel.java:171)
at sun.rmi.server.UnicastRef.newCall(UnicastRef.java:306)
at sun.rmi.registry.RegistryImpl_Stub.lookup(Unknown Source)
at ar.org.fitc.test.rmi.integration.RemoteHashClient.main(RemoteHashClient.java:74)
Mar 10, 2006 10:19:49 AM sun.rmi.transport.proxy.RMIMasterSocketFactory createSocket
FINE: main: trying with factory: sun.rmi.transport.proxy.RMIHttpToCGISocketFactory@1193779
Mar 10, 2006 10:19:49 AM sun.rmi.transport.proxy.HttpSendSocket <init>

FINER: main: host = 10.100.2.246, port = 1099, url = http://10.100.2.246/cgi-bin/java-rmi.cgi?forward=1099
Mar 10, 2006 10:19:49 AM sun.rmi.transport.proxy.HttpSendSocket readNotify
FINER: main: sending request and activating input stream
Mar 10, 2006 10:19:49 AM sun.rmi.transport.proxy.HttpSendSocket readNotify
FINE: main: failed to get input stream, exception:
java.io.IOException: Server returned HTTP response code: 500 for URL: http://10.100.2.246/cgi-bin/java-rmi.cgi?forward=1099
at sun.net.www.protocol.http.HttpURLConnection.getInputStream(HttpURLConnection.java:1149)
at sun.rmi.transport.proxy.HttpSendSocket.readNotify(HttpSendSocket.java:154)
at sun.rmi.transport.proxy.HttpSendInputStream.read(HttpSendInputStream.java:51)
at sun.rmi.transport.proxy.RMIMasterSocketFactory.createSocket(RMIMasterSocketFactory.java:228)
at sun.rmi.transport.tcp.TCPEndpoint.newSocket(TCPEndpoint.java:569)
at sun.rmi.transport.tcp.TCPChannel.createConnection(TCPChannel.java:185)
at sun.rmi.transport.tcp.TCPChannel.newConnection(TCPChannel.java:171)
at sun.rmi.server.UnicastRef.newCall(UnicastRef.java:306)
at sun.rmi.registry.RegistryImpl_Stub.lookup(Unknown Source)
at ar.org.fitc.test.rmi.integration.RemoteHashClient.main(RemoteHashClient.java:74)
Mar 10, 2006 10:19:49 AM sun.rmi.transport.proxy.RMIMasterSocketFactory createSocket
FINE: main: factory failed:
java.io.IOException: HTTP request failed
at sun.rmi.transport.proxy.HttpSendSocket.readNotify(HttpSendSocket.java:159)
at sun.rmi.transport.proxy.HttpSendInputStream.read(HttpSendInputStream.java:51)
at sun.rmi.transport.proxy.RMIMasterSocketFactory.createSocket(RMIMasterSocketFactory.java:228)
at sun.rmi.transport.tcp.TCPEndpoint.newSocket(TCPEndpoint.java:569)
at sun.rmi.transport.tcp.TCPChannel.createConnection(TCPChannel.java:185)
at sun.rmi.transport.tcp.TCPChannel.newConnection(TCPChannel.java:171)
at sun.rmi.server.UnicastRef.newCall(UnicastRef.java:306)
at sun.rmi.registry.RegistryImpl_Stub.lookup(Unknown Source)
at ar.org.fitc.test.rmi.integration.RemoteHashClient.main(RemoteHashClient.java:74)
Mar 10, 2006 10:19:49 AM ar.org.fitc.test.rmi.integration.RemoteHashClient putCall
INFO: RemoteMapClient inserting on 10.100.2.246 key=one, value=pride
Exception in thread "main" java.lang.NullPointerException
at ar.org.fitc.test.rmi.integration.RemoteHashClient.putCall(RemoteHashClient.java:111)
at ar.org.fitc.test.rmi.integration.RemoteHashClient.populateHashMap(RemoteHashClient.java:101)
at ar.org.fitc.test.rmi.integration.RemoteHashClient.main(RemoteHashClient.java:81)
RemoteMapClient problem with RemoteMap, exception:
java.rmi.ConnectIOException: Exception creating connection to: 10.100.2.246; nested exception is:
java.net.NoRouteToHostException: connect timed out: 10.100.2.246
pride