

Scenario Configuration - RMI Integration Testing using HTTP tunneling

Employed Software

Operating system: Gentoo Linux 2005.1

Firewall: Shorewall 3.0.5-r1

Proxy: Squid 2.5.12

WebServer: Apache 2.0.55-r1

JDK: Sun 1.5.0_06

IDE: Eclipse 3.1

Brief Description

A basic set up of the Gentoo Linux operating system was performed, preparing it this way to execute The Eclipse integrated development editor and some network tools.

Setting N° 1: Direct Connection

Both machines must belong to the same net.

Machine N° 1

- Shorewall, permitting direct access to the network 10.100.2.0/24
- IP for network interface 1: 10.100.2.241/24
- IP for network interface 2: 90.0.0.1/24

Machine N° 2

- Network interface connected to the interface 2 of machine N° 1
- IP for network interface 1: 90.0.0.2/24
- RMI Client

Machine N° 3

- Network interface connected to the interface 1 of machine N° 1
- IP for network interface 1: 10.100.2.229/24
- RMI Server

Setting N° 2: Direct Connection using HTTP

Machine N° 1

- Shorewall blocking direct access or at least port 1099 to the network 10.100.2.0/24
- Squid Proxy listening on port 3128
- IP for network interface 1: 10.100.2.241/24
- IP for network interface 2: 90.0.0.1/24

Machine N° 2

- Network interface connected to the interface N° 2 of machine N° 1
- IP for network interface 1: 90.0.0.2/24
- RMI Client

Machine N° 3

- Network interface connected to the interface 1 of machine N° 1
- IP for network interface 1: 10.100.2.229/24
- RMI Server

Setting N° 3: connection using http by means of a webservice with the java-rmi.cgi script

Machine N° 1

- Shorewall blocking direct access to the network 10.100.2.0/24
- Squid Proxy listening on port 3128
- IP for network interface 1: 10.100.2.241/24
- IP for network interface 2: 90.0.0.1/24

Machine N° 2

- Network interface connected to the interface N° 2 of machine N° 1
- IP for network interface 1: 90.0.0.2/24
- RMI Client

Machine N° 3

- Network interface connected to the interface 1 of machine N° 1
- IP for network interface 1: 10.100.2.229/24
- Shorewall blocking every port, except for 80
- WebServer listening on port 80 (with java.rmi.cgi)
- RMI server

Notes: Make sure every hostname is properly configured through /etc/hosts file or via DNS server.