



Quick Start Guide

Version 4.0

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Crosscheck Networks
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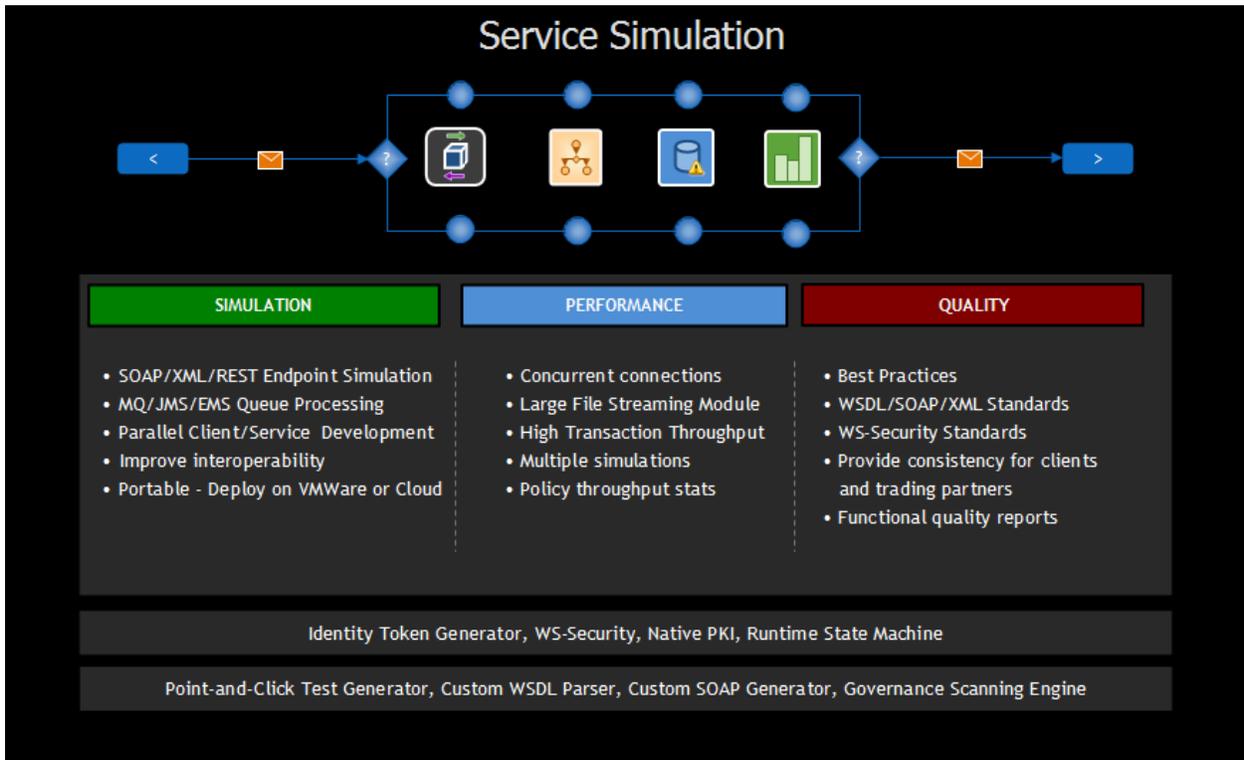
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INTRODUCTION

Welcome to the Crosscheck Networks CloudPort Service Simulation product. Crosscheck Networks created the CloudPort product to address the full range of web services simulation and client diagnostics features to compress the deployment lifecycle and allow parallel service and client development. With point-and-click service simulation, client development can be performed in parallel to service development and thus reduce the total project time.

Additional capabilities provide the means to validate the functional quality of the client requests, ensure that requests follow corporate best practices. CloudPort provides the portable framework that allows service simulations to be created and shared among team members to help ensure consistent development practices and techniques.

CloudPort can be used as a means to reduce sharing of IT and network resources for trading partner integration testing or new business unit integration. Simulations are portable which allows for integration testing locally before requiring shared lab time, firewall accessibility, and ultimately production server access.



CloudPort Editions

CloudPort Enterprise Edition

Provides all the features of Standard Edition and adds Large File Streaming, IBM MQ, Tibco EMS, Oracle JMS, and JBoss JMS messaging adaptors, and dynamic client-side simulation control enabling clients to control Simulation Rules through special variables in headers or message content. Standard edition enables live runtime simulation rule editing when simulation is active.

CloudPort Runtime Player (Free)

Saved CloudPort simulations can be played on an unlimited number of machines using the free runtime player. This allows playing any simulation on any number of machines after the simulation project rules have been defined and stored in a re-distributable CloudPort simulation project file (.ssp) using CloudPort Platinum Edition, or CloudPort Standard Edition to author the simulation rules.

Canned simulations are provided for free for the following:

- Echo Service
- Fault Service
- Pre-Built Response Service

MINIMUM REQUIREMENTS

The following is a list of requirements for installing CloudPort Enterprise Edition

CloudPort is a .NET tool that runs on Windows only.

Operating Systems

Windows 8 32bit/64bit
Windows 7 32bit/4bit
Windows Server 2012
Windows Vista 32bit
Windows XP
Windows Server 2008
Windows 2003
Windows 2000

NOTES: CloudPort can be run on MAC and UNIX based systems through the use of a Virtual Machine running a Windows OS or via WineHQ.

Systems Minimum Requirements

1GB RAM (Minimum)
1GHz CPU (Minimum)
250MB Free Disk Space

.NET Framework

Additional Installation and Activation Requirements

Local Administrator rights - full access to registry
Network connectivity for activation (online via HTTPS or manual via email)
For more information on running CloudPort with Administrator rights see:
<http://www.sevenforums.com/tutorials/11841-run-administrator.html>

If you plan on heavy performance testing with CloudPort, please contact Crosscheck Networks support to discuss recommended requirements.

INSTALLATION

The CloudPort installation is very straight forward. Simply run the EXE and follow the on-screen instructions.

Important Notes

- When installing on Windows 7, be sure to launch the installer with the “Run as Administrator” option. Right click on the EXE to find this option.
- If the instance of CloudPort will be used by multiple different user accounts on the same PC, install into a shared directory (i.e. C:\Users\All Users\Programs\Crosscheck Networks) that all users have full permissions to access.

LICENSING

Licenses that are installed directly on the machine where CloudPort is running are called instance licenses. Instance licenses require activation when installed.

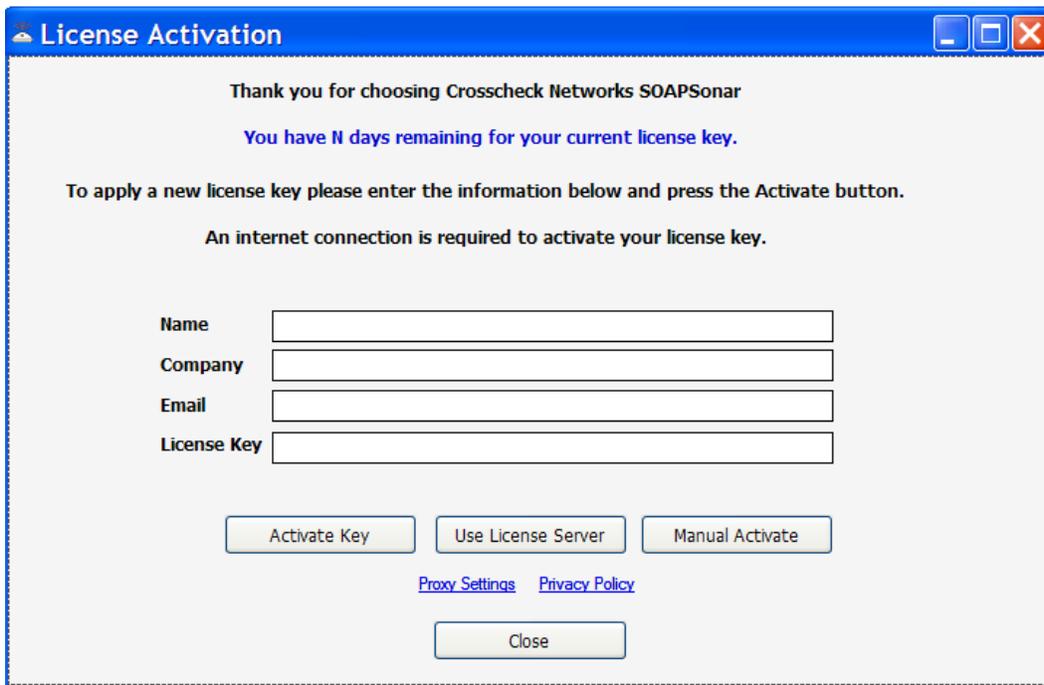
Licenses that are shared among any number of deployed CloudPort installations are called floating licenses. Floating licenses are leased for a period of time when needed, and returned to the pool of available licenses once the lease has expired.

Instance Based Licensing

IMPORTANT NOTE: It is very important that the license activation be done with full Administrator access. With Windows 7 this often means launching the product with the “Run as Administrator” option.

Instance based licensing uses license keys which are activated on the specific instance of the application. An instance license is enabled based on activation of the license key.

To apply an instance license, go to the **Registration->Install Instance License** menu and enter your user information as well as the license key provided to you.



Internet License Activation

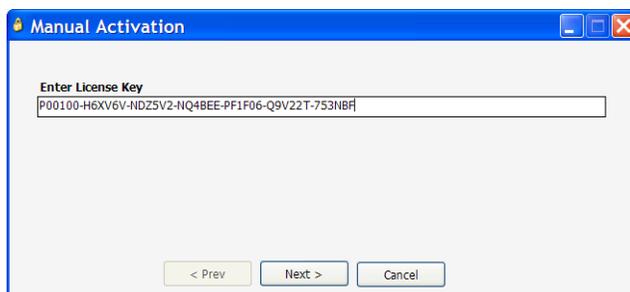
Once the information has been entered, press the Activate button to activate this license against the Crosscheck Networks Activation server. If the license key has valid activations remaining, your license will be enabled for this instance.

If you do not have internet access, refer to the Manual Activation steps shown in the Manual License Activation section below.

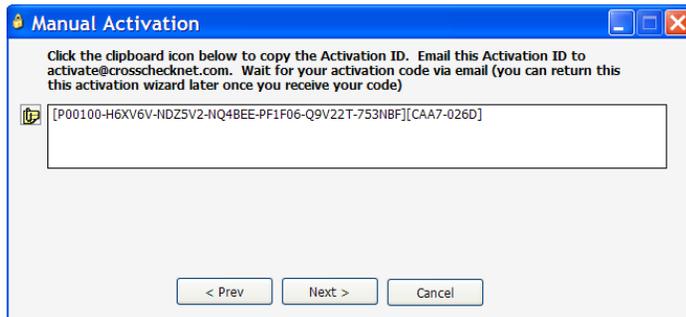
Manual License Activation

If you do not have internet access to activate your license using the Crosscheck Networks Activation server, then follow the steps below the manually activate your license instance.

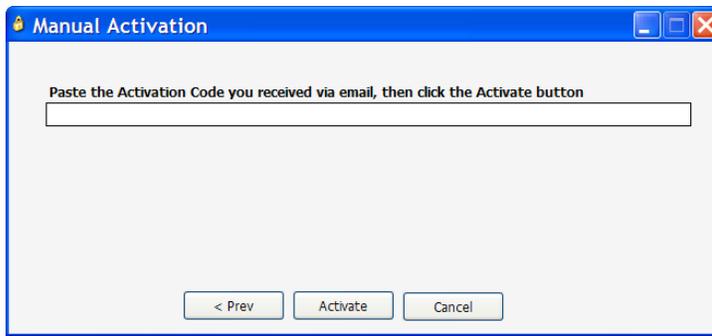
1. Enter your name, company name, email, and key code in the fields provided.
2. Click on the "Manual Activate" button below the key code field. The manual activation dialog will appear with your target license key to be activated. Please check this key to be sure it is the key you intend to activate. Press the Next button



3. The Manual activation code will be generated on the next screen. Copy the activation ID shown (click the clipboard button) and email this ID to activate@crosschecknet.com



4. Crosscheck Networks will return the Activation Code in an email. Enter the provided Activation Code in the "Enter Activation Code" box



5. Close and restart the product.

Floating Based Licensing

Floating Licenses use a license server to obtain a lease for a license key for a specified duration. The Crosscheck Networks License Server is installed on some location within the network that can be accessed by the individual CloudPort instances. The Crosscheck Networks License Server uses a leasing model which does not require persistent network access to the licensing server, but rather only access at the time the lease is granted. Once a lease is granted, the product instance will not need to have a connection to the license server to use the leased license.

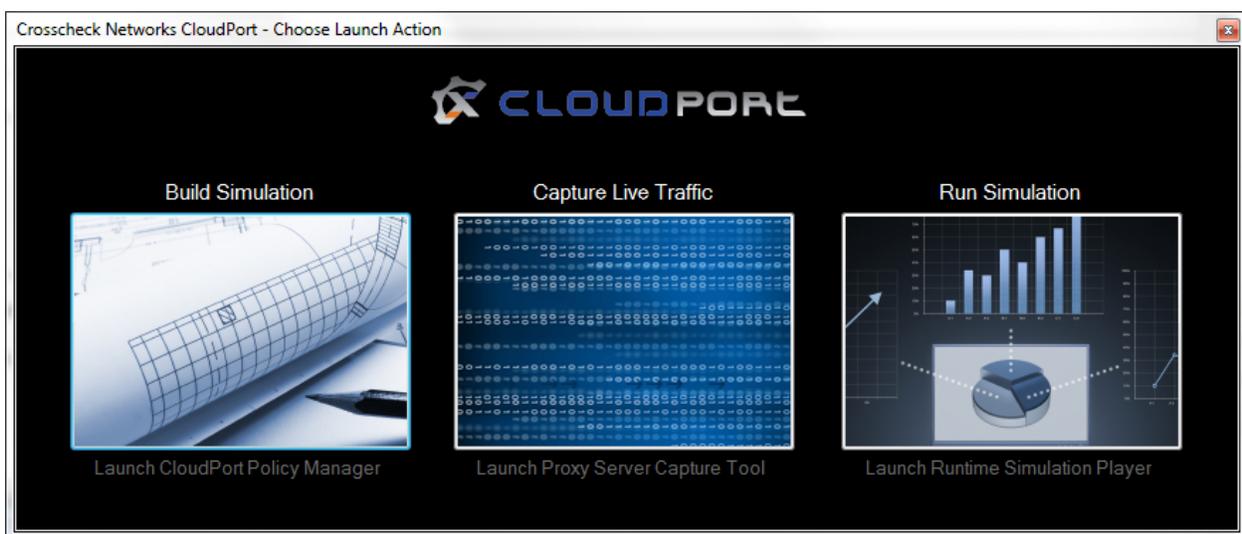
GETTING STARTED

Launch Options

Choose “Build Simulation” to launch the CloudPort Policy Manager to build the rules for the simulation and save the information in a simulation project file.

Choose “Capture Live Traffic” to launch the Crosscheck Proxy Traffic Capture tool to capture live traffic requests and responses as well as timing. The captured transactions can be subsequently imported into CloudPort for automatically created simulations from the captured data.

Choose “Run Simulation” to launch the CloudPort Server to run the project rules and listen on the network for inbound client requests, or to a message queue for MQ or JMS simulations.



Note: If you are running the free runtime simulation player, there will be no launch option, it will automatically launch into the simulation project selection dialog to run the simulation.

Building Simulations with the CloudPort Policy Manager

The CloudPort Policy Manager interface is used to create the simulation rules used by the runtime simulation server when running simulations. The interface is broken down into 3 views: Project Editing, Execution Monitoring, and Simulation Diagnostics.

Project Editing

Shows the options and settings for creating Network endpoint and ESB-based simulations. This is also where document analysis such as WSDL Scoring, and building task rules or success criteria rules is performed.

Execution Monitoring

Shows the options and settings to configure remote simulations.

Simulation Diagnostics

Shows the reporting and logging for the previously run simulations.

Simulation Types

CloudPort allows you to build WSDL based SOAP simulations from a source WSDL and schema, document, or build any arbitrary XML or REST endpoint simulations using custom definitions. All defined simulations are portable and stored in CloudPort project files that can then be run using the runtime CloudPort simulation player.

SOAP Simulation Test Case

Point-and-click SOAP simulation is accomplished by simply loading a WSDL. The parsed WSDL and Schema will be represented in the project tab and a simulator for each WSDL operation will be generated automatically based on the schema. Additional settings and additional simulators can then be added for custom business logic simulations. Simulator SOAP responses can be built using the proprietary Crosscheck Networks SOAP generator which provides graphical representation of the schema for the message where the SOAP document is subsequently generated automatically.

XML Simulation Test Case

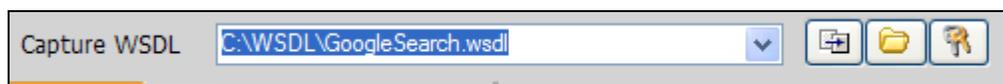
An XML Simulation provides the means to import or create any custom request/response transaction sequence. You can also combine XML Simulators with SOAP Simulators.

REST Simulation Test Case

A REST Simulation provides the means to define input headers to target the simulation rules.

WSDL Capture

To create a Web Services Simulation, a WSDL document provides the contract of information about the expected structure of each request and response for the service to allow clients to build requests to consume the services responses. CloudPort parses WSDL documents for service emulation and exposes the new simulated service WSDL and schema on a new network listener port. When a WSDL is captured, it becomes a new Project item in the project tree with various configuration options for the simulation environment and creating one or more request/response simulators for each service operation.



Capturing a WSDL document will automatically build SOAP Simulators based on the settings enabled in the File->Settings panel. You can capture a WSDL document using several supported methods, including

- Drag-Drop – Drag and drop WSDL files from a file explorer directly into the project window
- File – Browse your file system for the WSDL to load
- HTTP – Fetch the WSDL using HTTP
- HTTPS – Fetch the WSDL using HTTPS
- HTTP Basic Auth – Fetch the WSDL using HTTP with Basic Authentication Credentials
- HTTPS Basic Auth - Fetch the WSDLs using HTTPS with Basic Authentication Credentials
- HTTPS X.509 Auth - Fetch the WSDLs using HTTPS and X.509 SSL Authentication
- Project – Load WSDLs previously saved to a project file

For http or https access, authentication options are provided using the “Authentication Options” button at the right of the WSDL Location field. CloudPort supports both HTTP Basic Authentication and SSL X.509

client authentication. SSL X.509 client authentication is supported through a fully integrated native PKI management interface that allows you direct access to your windows certificates and private keys. Simply select the certificate you want to use for SSL client cert from the list of X509s loaded on your local machine.

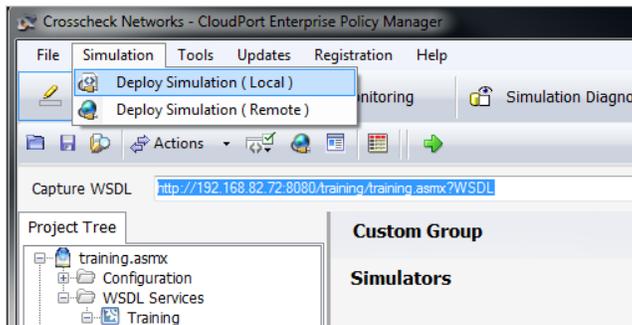
Once the WSDL is captured and parsed, the WSDL project tree will show a graphical representation of the WSDL contents. Each node in the WSDL project tree will show properties specific to the type of object (i.e. Service, Operation, Simulator). When you select an item in the tree, the available options for that item will appear on the right portion of the screen.

RUNNING SIMULATIONS

Simulations are run in a separate process and can be launched independently of the project console. A project file contains the settings for the simulation and the project file can be launched through the Policy Manager or via the launch options.

Run using the local Runtime Simulation Player

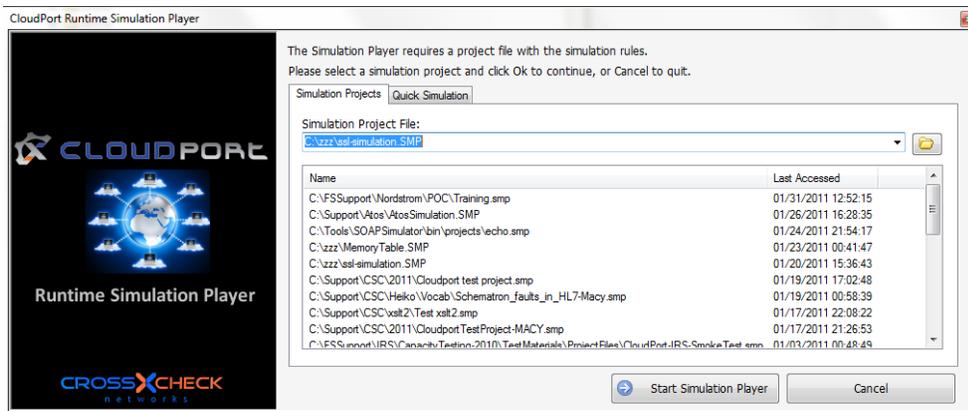
Launch from the Simulation menu



Run Simulation from Launch Menu

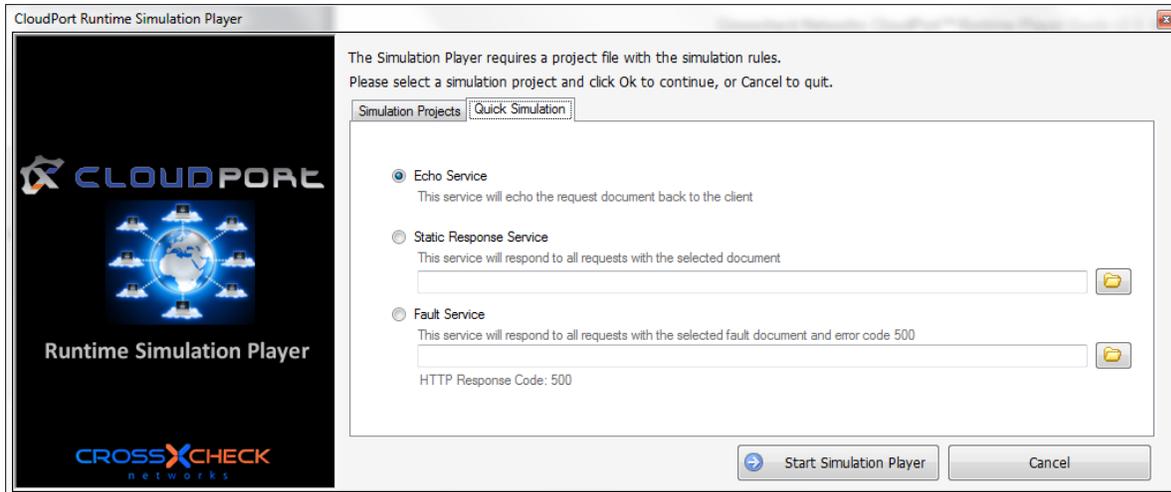
Once a simulation project is built and saved, this can be run from the CloudPort Runtime Simulation Player.

To run the simulation, simply select from a previously run simulation, or use the browse button to browse to the location where the **SMP** simulation project file is stored.



Running Embedded Simulations

There are several types of simulations that can be run without any configuration rules required.



Echo Service

This is an embedded service which will echo the request document back to the client. When running this simulation type you will be prompted for the port to run the echo service on.

Static Response Service

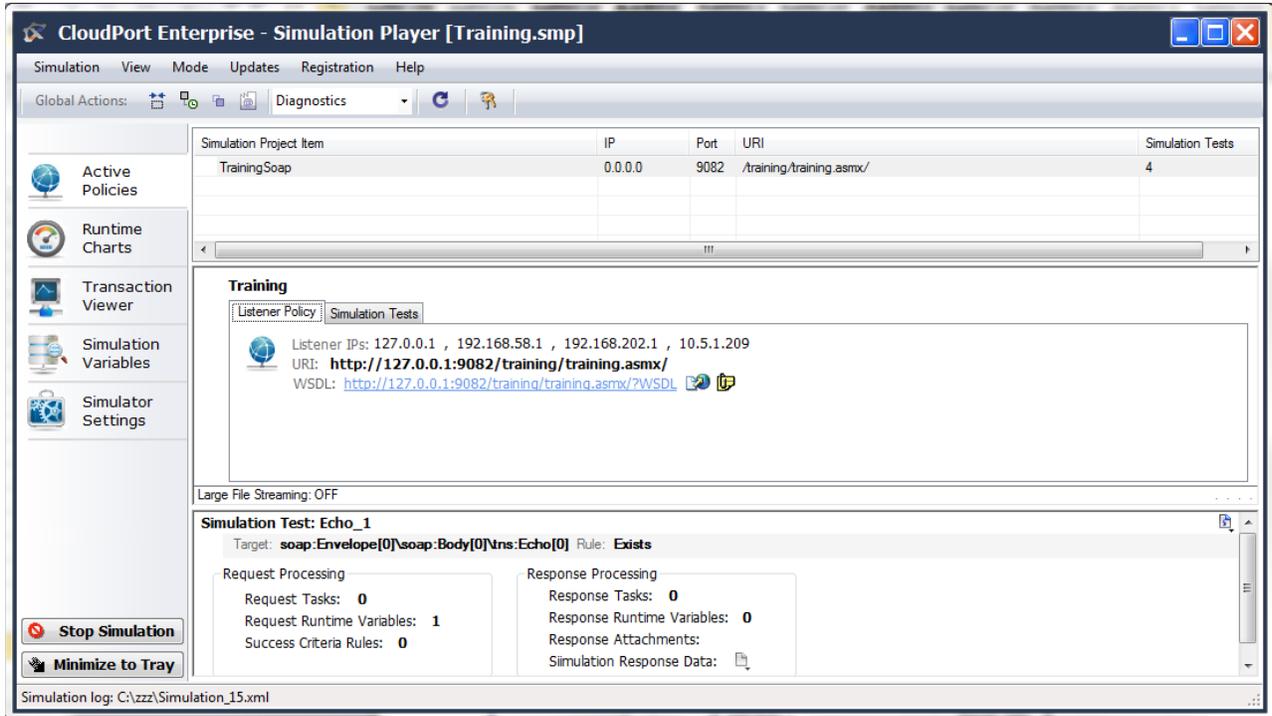
This is an embedded service which takes a specified document and always returns this document back to the client. When running this simulation type you will be prompted for the static response document and for the port to run the echo service on.

Fault Service

This is an embedded service which takes a specified document and always returns this document back to the client along with a 500 HTTP fault code. When running this simulation type you will be prompted for the static response document and the port the run the service on.

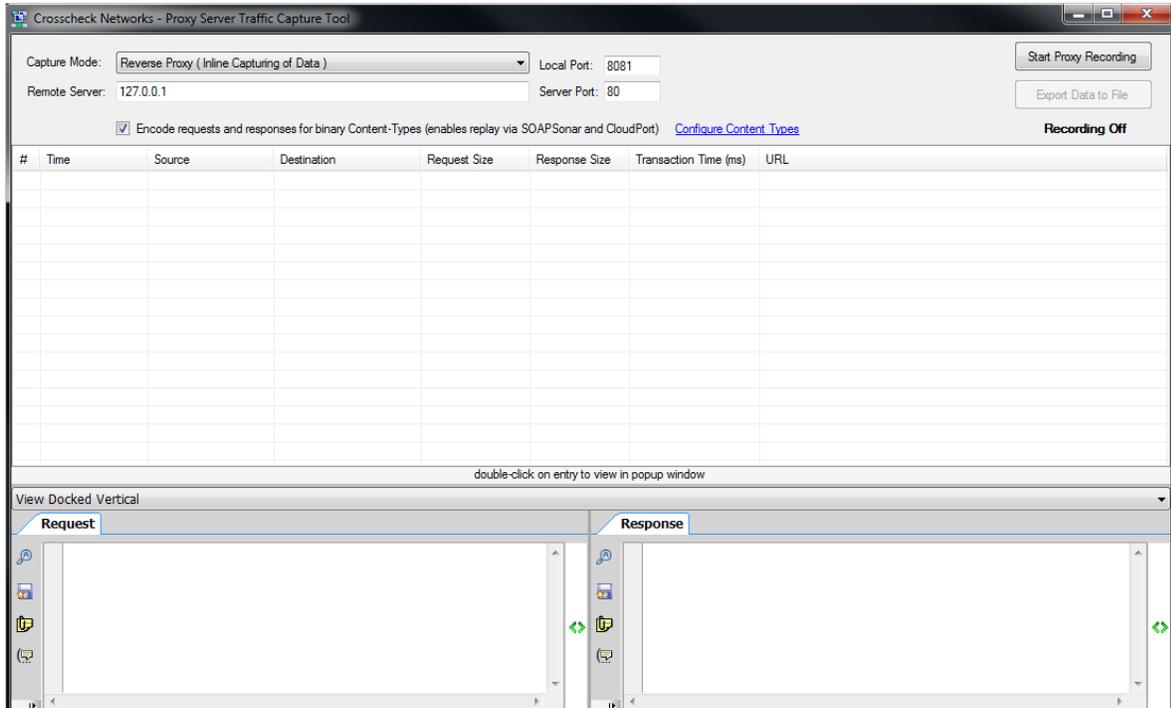
The Runtime Simulation Player

The simulation player will open in a separate window. Options within the player include the ability to see the active policies, runtime charts, view runtime transactions, and the simulator settings.



PROXY SERVER TRAFFIC CAPTURE TOOL

CloudPort includes a built in tool that works as either a forward or reverse proxy server to capture live traffic. The captured traffic can later be replayed with either SOAPSonar or CloudPort.



Capture Modes

Reverse Proxy (Inline Capturing of Data)

- Specify a local port to listen on
- Specify the IP or DNS name of the remote server that CloudPort will send the traffic to
- Specify the port listening on the remote server



HTTP Forward Proxy (Browser with Proxy Settings Configured)

- Specify a local port to listen on

