SDKPerf

# Overview

SDKPerf is an application built on top of the Solace Systems Message APIs (JMS, Java, C, .NET). It is designed as a tool to be used to test functionality and performance of the Solace Systems messaging environment. It is not a product that is delivered to customers. However, customers are given access to the source code upon request.

# Application Description and Flow

SDKPerf is extremely flexible in that it makes use of most (if not all) of the Solace API features. The flexibility of the application is controlled by command line options. The various languages generally support the same set of command line options.

The application flow for given invocation of SDKPerf is as follows:

1. Connect clients
2. Add subscriptions
3. Start publishing
4. Wait until publishing is done
5. Remove subscriptions
6. Disconnect clients
7. Cleanup and report stats

*Note: If the set of command line options used does not result in messages being published, the application will wait for SIGINT (Ctrl-C) instead of waiting until publishing has been completed.*

# Command Line Options (Common)

The complete list of command line options can be listed using the -hm command line option. There are too many use cases to cover here. The following are the more commonly used command line options:

|  |  |  |
| --- | --- | --- |
| CLI Option | Description | Example |
| Connection Options | | |
| -cip=<ip[:port]> | IP and port of the client appliance | -cip=192.168.1.100 |
| -cu=<user[@vpn]> | Client username and message VPN name | -cu=user01@vpn01 |
| -cp=<string> | Client password | -cp=secret |
| -jcf=<string> | JMS connection factory (JMS only) | -jcf=/jms/cf/default |
| -jndi | Enable JNDI topic and queue lookups (JMS only) | -jndi |
| -cc=<int> | Number of client connections | -cc=2 |
| Subscription Options | | |
| -sql=<list> | List of queue names from which clients will receive messages | -sql=q01,q02 |
| -sdl=<list> | List of durable subscription names from which the clients will receive messages | -sdl=d01,d02 |
| -stl=<list> | List of topics that applied as subscriptions (or mapped onto queues) | -stl=a/b,c/d |
| Publishing Options | | |
| -pql=<list> | List of queue names to which messages will be published | -pql=q01,q02 |
| -ptl=<list> | List of topics to which messages will be published | -ptl=a/b,c/d |
| -mt=<string> | Message type for published messages where valid values are ‘persistent’, ‘nonpersistent’, and ‘direct’ | -mt=persistent |
| -mn=<int> | Total number of messages to publish | -mn=10000 |
| -mr=<int> | Publishing rate in messages per second | -mr=100 |
| -msx=<list> | List of sizes in bytes for auto-generated xml message payloads | -msx=100,200,500 |
| -msa=<list> | List of sizes in bytes for auto-generated binary attachment payloads | -msa=100,200,500 |
| -mtl=<int> | Published messages will have this value for their time to live (milliseconds) | -mtl=10000 |
| -mdq | Published messages will be flagged as eligible for the dead message queue | -mdq |
| General Options | | |
| -q | Enable quite mode to suppress real time message rates | -q |
| -md | Dump all received messages to the screen as text | -md |
| -hm | Show the entire set of command line options | -hm |
| -he | Show some example command lines | -he |

# Example Commands

#### Publish 10 100-byte persistent messages between queue.1 and queue.2 at 1 msg/sec

Command:

sdkperf\_jms.sh -cip=192.168.yyy.zzz -jcf=/jms/cf/default -jndi -cu=user01@vpn01 -pql=queue.1,queue.2 -mn=10 -msa=100 -mt=persistent -mr=1 -q

Stats summary:

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Aggregate Stats (Total # clients: 1):

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Total Messages transmitted = 10

Computed publish rate (msg/sec) = 1.0

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Total Messages received across all subscribers = 0

Messages received with discard indication = 0

Computed subscriber rate (msg/sec across all subscribers) = 0

#### Subscribe to queue.1 and queue.2 with 2 client connections to receive messages and dump all messages to the screen as text

Command:

sdkperf\_jms.sh -cip=192.168.yyy.zzz -jcf=/jms/cf/default -jndi -cu=user01@vpn01 -cc=2 -sql=queue.1,queue.2 -q -md

Stats Summary:

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Aggregate Stats (Total # clients: 2):

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Total Messages transmitted = 0

Computed publish rate (msg/sec) = 0.0

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Total Messages received across all subscribers = 10

Messages received with discard indication = 0

Computed subscriber rate (msg/sec across all subscribers) = 343