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sdkperf_c [options]

Client control:
-cip=ip[:port] IP and port of the client router. (e.g. -cip=192.168.160.101)
-cu=user[:vpn] Client username and optionally VPN name. Used only with TRB routers.
                (default perf_client)
-cn=string      Root name for clients, index appended (default in pubsub mode is 'perf_client')
                First client by default is 'perf_client0001', second is
                'perf_client0002', etc.) (default in client mode is sdk specified)

Message Control:
-mr=number      Publishing rate (msg/sec per client) (default 1)
-mn=number      Total # messages to publish (across ALL clients). (default is 0)
-max=list       Comma sep size list in bytes for auto-generated xml payload portion.
-msa=list       Comma sep size list in bytes for auto-generated binary attachment portion.
-mt=string      Message type, one of
                direct|nonpersistent|persistent).
                Default is direct
-md             Dump all received messages to the screen as text

Publishing options (All files lists are comma separated, full paths):
Note: All lists of message parts specified must be of equal length.
-pfl=list       Xml data file list
-pal=list       Binary attachment list.
-ptl=list       List of topics for publishing. Note: This list must be
                either of size 1 (same topic used for all msgs) or
                of equal length to message parts specified (topics uniquely specified).
-pql=list       List of queues for publishing. Note: This list must be
                either of size 1 (same queue used for all msgs) or
                of equal length to message parts specified (queues uniquely specified).
-psv=number     Configure pub send vector. Default is 0, meaning disabled. Max is 50
-psm           Enable smooth publishers. Used for latency testing.

Subscribing options (All lists are comma separated)
Note: Elements of the given lists are applied round robin to clients. Ie if you have
      2 clients and 2 topics, then each client will get 1 topic.
-sxl=list       Comma sep list of XPEs applied round robin to clients
                Note: Escape quotes with \
-sql=list       List of queues for subscribing applied round robin to clients
-sdl=list       List of durable topic endpoints (DTE) for subscribing. If using DTEs
                and this param is omitted, topic names will be used as DTE names.
-stl=list       List of topics for subscribing applied round robin to clients
-ssl=list       List of selector strings applied to filter messages from flows
-tte=int        Number of temporary topic endpoints to create per client.
-tqe=int        Number of temporary queue endpoints to create per client.
-nsr           No subscription remove. Flag to indicate that sdkperf should
                not remove subscriptions on exit.

Performance measurement options. Runtime must be > 1 second:
-l flag         Enable latency measurements (default is no latency).
-lb=int         Enable latency measurement with # buckets (default 1024
                buckets)
-lg=int         Latency granularity factor (default 11)
-nagle         Enable Nagle's algorithm (RFC 896) to allow higher tcp throughput. (replaces -tnd)

Tool Specific Options:

-ka=number      Keepalive interval in milliseconds. (Default -1)
-z=number       Enable compression. (1..9) 1 is fastest, 9 max compression.
-epl=list       Comma sep list of extra Props passed blindly to the sdk

General Parameters:
-log=string      Set the log level. Valid values are (debug,info,warning,
                notice,error,critical). Default is no logging customization.

General Flags:
-soe           Stop client connections or publishing on errors.
-v            Show version
-h | -?       Show this short help
-hm          Show more help. Ie all other options not shown in basic help
-he          Show cli examples help

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Advanced Options
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Client control:
-cc=number      Number of client connections (default 1)
-cp=password    Client password (default '' )
-cdp=L[:N]      Client DeliverToOne Priority. L for Local priority. N for Network Priority.
                (Priorities are integers 1..4)
-ccn           Flag to change client names following reconnect. Rather than correctly setting them on connect.
-cm=string      Client mode. One of 'reflect' or 'sink'. Default is 'sink'. In reflect
                all messages received will be published to the ptl topic. Do not use with publishing request.
-cmd           Flag to enable msg dispatch on clients.
-cpc           Context per client. Enable 1 context for each client.
-cpt number     Number of publish threads per client (default 1)
-cn1           Client No Local on session and all endpoints. (default false)

Message Control:
-mrt=string      Publishing rate targets one of 'avg' or 'max'. (default avg)
-msxs=val       Where val=start,step,end in bytes for a list of xml payload sizes.
-mxsv=val       Where val=start,step,end in bytes for a list of binary attachment sizes.
-sdm=list       Comma sep list of input files to use in structured data messaging.
                (Use empty list to send canned messages). Also enables checking on recv.
-mdq           Messages should be flagged eligible for the dead message queue
-mtl=int        Messages will be tagged with time to live (millis) of this value
-mee           Messages should be flagged eligible for message eliding

Publishing options:
-ptf=list       List of files containing topics for publishing. Note all publishers
                publish to all topics.
-pqf=list       List of files containing queues for publishing. Note all publishers
                publish to all queues.
-ped=int        Publish end delay. The time in seconds
                to wait following publishing the final message before
                bringing down subscriber data channels.
                (Default 2 (seconds))
-rci=int        Rate Check Interval. This is the number of messages
                to wait before checking if the publisher is publishing
                too fast. Smaller numbers are smoother. Default is 10
-cos=int        The cos value to use in publishing. Valid range (1..3) or
                0 to leave unspecified in API.
                Default is 1
-pt0           Publish to one. Flag to have publisher set deliver to one field
                transmitted messages.
-pto           Publish stream offset. Add stream ids to outgoing messages using this offset
-pso=int        Publish order offset. Add this offset to order ids of outgoing messages
-bd=int         Duration of burst (double value in seconds), enables bursty publishing.
                Use with inter-burst duration.
-ibd=int        Optional inter-burst duration (double value in seconds), specifies duration of inter
                burst gaps. Use with burst duration

Subscribing options (All lists are comma separated)
-sxf=list       List of files of the form:
                file1[:number],file2[:number],...
                the number specifies how many XPEs are used from each file
-sqf=list       List of files containing queues for subscribing.
-sdf=list       List of files containing DTEs for subscribing.
                If using DTEs and DTE param is omitted, topic names will be used as DTE names.
-stf=list       List of files containing topics for subscribing.
-sst=list       List of files containing selector strings
-sd=int         Per subscriber per msg delay in milliseconds. Ie slow subscribers.
                Use -1 to stop the subscriber from responding to messages.
                (default 0)
-sdc=int        Slow subscriber count. Number of msgs a subscriber will be slow
                before returning to normal.(default -1, slow forever)
-sri=int        Subscriber rate interval. A method of controlling how
                often the subscriber calculates throughput. The subscriber
                will calculate rate every sri messages. (default 1)
                Use -1 to disable rate checking.
-nsm           No subscription memory. Flag to disable re-add of subscriptions on
                channel reconnects.
-skms=int       Enables subscriber keep of msg. The value is the depth of queue
                for messages that shd be kept before being freed again to the sdk
-qb            Enables queue browsing. Option must be used with '-sql'
-qbd=F,B        Queue browsing delete instructions. F is for frequency of delete. B is
                for number of messages to buffer before deleting
-pe            Enables provisioning and cleanup of queues and topic endpoints
-pep=char       Provisioned Endpoints Permissions. One of (n)one, (r)eadonly,
                (c)onsume, (m)odify, (d)elete
-pea=int        Provisioned Endpoints Access Type. 0 for Non Exclusive, 1 for Exclusive
-peq=int        Provisioned Endpoints Quota in MB
-pem=int        Provisioned Endpoints Max Message Size in bytes
-per           Provisioned Endpoints Respect TTL flag
-scn string     Subscription client name. All subscriptions will be entered on behalf of this client.

Client Ack Options (applies only to GD msgs)
-ca            Enable client ack for all GD msgs. (default auto ack)
-cask=int      Skip acking this many messages during client ack.
-caq=int       Queue size for buffering of msgs before processing them for client acks
-caf           When queue is full ack all messages in the queue. (Ie burst acks)
-cafr         Same as -caf but process the queue in reverse order.
-car=int       When processing ack queue, choose a message at random
                up to this value. The larger this value the larger the
                perf impact of using this option

Performance measurement options. Runtime must be > 1 second:
-lat          Enable latency average and 99th stats printout
-lfl=int       Enable first to last latency stats with specified fanout
-lp           Set the latency precision in significant digits after the decimal.
-lwu=sec       Set latency warmup in seconds. (default 0.5)
-lpm          Want latency print on each message.
-tps flag     Enable per-subscriber throughput stats
-crc          Enable CRC-32 check of message payload (default off)
-oc           Enable order checking on clients.
-om           Enable order memory on clients.
-ud          Send userdata in msgs. Userdata will be the alphabet then
                the digits to fill the space
-mec         Msg Examine Content - A flag used to tell sdkperf
                to check each part of the message and keep stats on msgs
                received. Ex: num messages with xml payload, etc
-cid          Enable stats per consumer id.
-di          Enable Discard indication statistics.

Assured Delivery:
Note: For all AD properties the default behavior is to leave the
      particular CSMP property unmodified
-apw=int       Set the publisher ack window size. Valid range is 1 - 255
-apa=int       Set the publisher ack timeout in milliseconds. Valid
                range is 0 - 5000
-asw=int       Set the subscriber ack window size. Valid range is 1 - 255
-asa=int       Set the subscriber ack timeout in milliseconds. Valid
                range is 0 - 1500
-awt=int       Set the subscriber ack window threshold in percent. Valid
                range is 1-75
-amr=int       Set the maximum number of resend when a message ack is
                missing. Valid range is >= 0
-afi          Enable active flow indication on each flow

Cache Options (-ch.):
-chpn=string   Property - Name of cache for requests
-chpm=int      Property - Max Msgs Per Topic
-chpa=int      Property - Max age for cached messages in secs
-chpt=int      Property - Timeout in msec for a given cache request
-chrs         Want Request on Subscribe - Tool will perform cache request
                on every subscribe performed
-chrr=double   Request rate (msgs/sec)
-chrn=int      Request number. How many requests to send at the rate specified.
-chrt int:int  Topic Sequence number range <begin:end> for the cache request.
                Values are passed to SDK unchanged.
-chld=string   Live Data Action. One of QUEUE, FULFILL, FLOW_THRU

Tool Specific Options:
-srs flag     Enable per-subscriber subscription update rate stats
-rc=number    Retry Count. Number of times SDK will try to re-establish a failed connection. (Default 3)
-srb=number   Set the Socket Receive Buffer Size. (Default - selected by OS)
-szb=number   Set the Socket Send Buffer Size. (Default - selected by OS)
-sbs=number   Session buffer size. Default is to leave unchanged. Currently around 32K.
-dbg=number   Smallest Datablock Size in SDK for this process. Other sizes are calculated
                from this. Currently 1K.
-bwt=number   Blocking write timeout (in msec). Default is to leave unchanged.
-upt         Tool data is contained in the user property map rather than the binary attachment.

Tool Specific Debug Options:
-d           Enable debug information.
-dki=number  Debug kernel interrupts. Spin using a cpu (no SDK or kernel calls) and report latency. Pass num loops.

General Parameters:
-alm=number   The interval in usec for SIGALRM. By default this is
                disabled (0)
-afs         Alarm Flag Session. Drop session on sigalarm calls.
-tac=cpu     affinity for context thread; zero-based CPU number
-tap=cpu     affinity for publisher threads; zero-based CPU number
-tam=cpu     affinity for smooth message feeder thread; zero-based CPU number

General Flags:
-tod         Flag indicating to use gettimeofday instead of clock ticks.
-q          Enable quiet mode. No command line output during
                publishing or subscribing.

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CLI Examples (for basic options see -h | -?)
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- Publish and receive 5 100 byte messages on a topic at 1 msg/sec:
  sdkperf_c -cip=192.168.160.xx -ptl=a -stl=a -msa=100 -mn=5 -mr=1

- Provision a queue, map 4 topics to this queue and publish to the topics:
  sdkperf_c -cip=192.168.160.xx -pe -sql=queue -stl=a,b,c,d -ptl=a,b,c,d -mn=100 -mr=100 -msa=100

- Publish to queue with time to live of 1 millisecond and mark the message as DMQ eligible:
  sdkperf_c -cip=192.168.160.xx -pql=queue -mt=persistent -mn=100 -mr=100 -msa=100 -mtl=1 -mdq

- Subscribe to topic 'a' with deliver always. Useful in testing publish to one (-pto):
  sdkperf_c -cip=192.168.160.xx -stl="a<TOPIC_END/>DA=1"

- Tune a client with a large number of topics to survive channel reconections:
  sdkperf_c -cip=192.168.160.xx -stf=<file_of_2M_topics> -epl="SESSION_CONNECT_TIMEOUT_MS,180000,SESSION_SUBCONFIRM_TIMEOUT_MS,20000"

- Bind to more than 100 flows (Note in CR add 1 to count for default flow):
  sdkperf_c -cip=192.168.160.xx -tte=500 -epl="SESSION_MAX_FLOWS,501"

- SMP over MsgBus (For copies of the reference files see: /home/public/RND/repository/docs/structDataMsgs):
  sdkperf_c -cip=192.168.160.xx -ptl=#P2P/v:hostname/#client/SMP -sdm=sdm_showHardware.txt -pal=show-hardware.xml -mn=1 -stl=me -md
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