



Basic information

DLT: fabric
Name: insert-historical-data-offer-benchmark
Description: Benchmarking the Hyperledger Fabric network with the InsertTestHistoricalDataOffer function
Benchmark Rounds: 3
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Benchmark results

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Caliper report

Summary of performance metrics

Name	Succ	Fail	Send Rate (TPS)	Max Latency (s)	Min Latency (s)	Avg Latency (s)	Throughput (TPS)
insert-historical-data-offer-100	100	1	100.5	0.64	0.17	0.41	66.2
insert-historical-data-offer-1000	100	1	101.0	0.41	0.11	0.27	77.3
insert-historical-data-offer-2000-fixed-load	98	0	98.1	2.23	0.12	0.41	31.7

Benchmark round: insert-historical-data-offer-100

Benchmarking the InsertTestHistoricalDataOffer function with a data size of 100 bytes at a fixed rate.

```
txDuration: 1
rateControl:
  type: fixed-rate
  opts:
    tps: 100
```

Performance metrics for insert-historical-data-offer-100

Name	Succ	Fail	Send Rate (TPS)	Max Latency (s)	Min Latency (s)	Avg Latency (s)	Throughput (TPS)
insert-historical-data-offer-100	100	1	100.5	0.64	0.17	0.41	66.2

Resource utilization for insert-historical-data-offer-100

Resource monitor: prometheus

Metric	Prometheus Query	Name
Avg Memory (MB)	sum(container_memory_rss{name=~".+"}) by (name)	ca_orderer
		couchdb0
		couchdb1
		dev-peer0.org1.example.com-basic_1.0-e961b826e2a1772403fa1461dc69e5cc120473a06e4fe1c3c9cd9eb35cdb2ab3
		dev-peer0.org2.example.com-basic_1.0-e961b826e2a1772403fa1461dc69e5cc120473a06e4fe1c3c9cd9eb35cdb2ab3
		orderer.example.com
		peer0.org1.example.com
		peer0.org2.example.com
CPU (%)	sum(rate(container_cpu_usage_seconds_total{name=~".+"}[1m])) by (name)	ca_orderer
		couchdb0
		couchdb1
		dev-peer0.org1.example.com-basic_1.0-e961b826e2a1772403fa1461dc69e5cc120473a06e4fe1c3c9cd9eb35cdb2ab3
		dev-peer0.org2.example.com-basic_1.0-e961b826e2a1772403fa1461dc69e5cc120473a06e4fe1c3c9cd9eb35cdb2ab3



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		orderer.example.com
		peer0.org1.example.com
		peer0.org2.example.com
Disc Write (MB)	sum(rate(container_fs_writes_bytes_total{name=~".+"}[1m])) by (name)	ca_orderer
		couchdb0
		couchdb1
		orderer.example.com
		peer0.org1.example.com
		peer0.org2.example.com
Disc Read (MB)	sum(rate(container_fs_reads_bytes_total{name=~".+"}[1m])) by (name)	ca_orderer
		couchdb0
		couchdb1
		orderer.example.com
		peer0.org1.example.com
		peer0.org2.example.com

Benchmark round: insert-historical-data-offer-1000

Benchmarking the InsertTestHistoricalDataOffer function with a data size of 1000 bytes at a fixed rate.

```
txDuration: 1
rateControl:
  type: fixed-rate
  opts:
    tps: 100
```

Performance metrics for insert-historical-data-offer-1000

Name	Succ	Fail	Send Rate (TPS)	Max Latency (s)	Min Latency (s)	Avg Latency (s)	Throughput (TPS)
insert-historical-data-offer-1000	100	1	101.0	0.41	0.11	0.27	77.3

Resource utilization for insert-historical-data-offer-1000

Resource monitor: prometheus

Metric	Prometheus Query	Name
Avg Memory (MB)	sum(container_memory_rss{name=~".+"}) by (name)	ca_orderer
		couchdb0
		couchdb1
		dev-peer0.org1.example.com-basic_1.0-e961b826e2a1772403fa1461dc69e5cc120473a06e4fe1c3c9cd9eb35cdb2ab3
		dev-peer0.org2.example.com-basic_1.0-e961b826e2a1772403fa1461dc69e5cc120473a06e4fe1c3c9cd9eb35cdb2ab3
		orderer.example.com
		peer0.org1.example.com
		peer0.org2.example.com
CPU (%)	sum(rate(container_cpu_usage_seconds_total{name=~".+"}[1m])) by (name)	ca_orderer
		couchdb0



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		couchdb1
		dev-peer0.org1.example.com-basic_1.0-e961b826e2a1772403fa1461dc69e5cc120473a06e4fe1c3c9cd9eb35cdb2ab3
		dev-peer0.org2.example.com-basic_1.0-e961b826e2a1772403fa1461dc69e5cc120473a06e4fe1c3c9cd9eb35cdb2ab3
		orderer.example.com
		peer0.org1.example.com
		peer0.org2.example.com
Disc Write (MB)	sum(rate(container_fs_writes_bytes_total{name=~".+"}[1m])) by (name)	ca_orderer
		couchdb0
		couchdb1
		orderer.example.com
		peer0.org1.example.com
		peer0.org2.example.com
Disc Read (MB)	sum(rate(container_fs_reads_bytes_total{name=~".+"}[1m])) by (name)	ca_orderer
		couchdb0
		couchdb1
		orderer.example.com
		peer0.org1.example.com
		peer0.org2.example.com

Benchmark round: insert-historical-data-offer-2000-fixed-load

Benchmarking the InsertTestHistoricalDataOffer function with a data size of 2000 bytes at a fixed rate.

```
txDuration: 1
rateControl:
  type: fixed-rate
  opts:
    tps: 100
```

Performance metrics for insert-historical-data-offer-2000-fixed-load

Name	Succ	Fail	Send Rate (TPS)	Max Latency (s)	Min Latency (s)	Avg Latency (s)	Throughput (TPS)
insert-historical-data-offer-2000-fixed-load	98	0	98.1	2.23	0.12	0.41	31.7

Resource utilization for insert-historical-data-offer-2000-fixed-load

Resource monitor: prometheus

Metric	Prometheus Query	Name
Avg Memory (MB)	sum(container_memory_rss{name=~".+"}) by (name)	ca_orderer
		couchdb0
		couchdb1
		dev-peer0.org1.example.com-basic_1.0-e961b826e2a1772403fa1461dc69e5cc120473a06e4fe1c3c9cd9eb35cdb2ab3
		dev-peer0.org2.example.com-basic_1.0-e961b826e2a1772403fa1461dc69e5cc120473a06e4fe1c3c9cd9eb35cdb2ab3
		orderer.example.com
		peer0.org1.example.com



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		peer0.org2.example.com
CPU (%)	sum(rate(container_cpu_usage_seconds_total{name=~".+"}[1m])) by (name)	ca_orderer
		couchdb0
		couchdb1
		dev-peer0.org1.example.com-basic_1.0-e961b826e2a1772403fa1461dc69e5cc120473a06e4fe1c3c9cd9eb35cdb2ab3
		dev-peer0.org2.example.com-basic_1.0-e961b826e2a1772403fa1461dc69e5cc120473a06e4fe1c3c9cd9eb35cdb2ab3
		orderer.example.com
		peer0.org1.example.com
		peer0.org2.example.com
Disc Write (MB)	sum(rate(container_fs_writes_bytes_total{name=~".+"}[1m])) by (name)	ca_orderer
		couchdb0
		couchdb1
		orderer.example.com
		peer0.org1.example.com
		peer0.org2.example.com
Disc Read (MB)	sum(rate(container_fs_reads_bytes_total{name=~".+"}[1m])) by (name)	ca_orderer
		couchdb0
		couchdb1
		orderer.example.com
		peer0.org1.example.com
		peer0.org2.example.com

Test Environment

benchmark config

```
name: insert-historical-data-offer-benchmark
description: >-
  Benchmarking the Hyperledger Fabric network with the
  InsertTestHistoricalDataOffer function
workers:
  number: 1
rounds:
  - label: insert-historical-data-offer-100
    description: >-
      Benchmarking the InsertTestHistoricalDataOffer function with a data size
      of 100 bytes at a fixed rate.
    chaincodeID: basic
    txDuration: 1
    rateControl:
      type: fixed-rate
      opts:
        tps: 100
    workload:
      module: benchmarks/datamanagement/workloads/historical-data-offer.js
      arguments:
        chaincodeID: basic
        byteSize: 100
  - label: insert-historical-data-offer-1000
    description: >-
      Benchmarking the InsertTestHistoricalDataOffer function with a data size
      of 1000 bytes at a fixed rate.
    chaincodeID: basic
    txDuration: 1
    rateControl:
      type: fixed-rate
      opts:
        tps: 100
    workload:
      module: benchmarks/datamanagement/workloads/historical-data-offer.js
      arguments:
        chaincodeID: basic
        byteSize: 1000
  - label: insert-historical-data-offer-2000-fixed-load
    description: >-
      Benchmarking the InsertTestHistoricalDataOffer function with a data size
```



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of 2000 bytes at a fixed rate.
chaincodeID: basic
txDuration: 1
rateControl:
 type: fixed-rate
 opts:
 tps: 100
workload:
 module: benchmarks/datamanagement/workloads/historical-data-offer.js
 arguments:
 chaincodeID: basic
 byteSize: 2000

SUT

not provided

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