

DLT: fabric

Name: insert-historical-data-offer-

benchmark

Description: Benchmarking the Hyperledger Fabric network with the InsertTestHistoricalDataOffer

function

Benchmark Rounds: 3

Details

Benchmark results

Summary

insert-historical-data-offer-100 insert-historical-data-offer-1000 insert-historical-data-offer-2000fixed-load

System under test

Details

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	3610	0	60.0	0.61	0.13	0.32	59.7
insert-historical-data-offer- 1000	3610	0	60.0	1.09	0.14	0.53	59.5
insert-historical-data-offer- 2000-fixed-load	3610	0	60.0	4.15	0.26	1.89	56.3

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

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

txDuration: 60
rateControl:
 type: fixed-rate
 opts:
 tps: 60

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	3610	0	60.0	0.61	0.13	0.32	59.7

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- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fc8e8
		dev-peer0.org2.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fc8e8
		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- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fc8e8
		dev-peer0.org2.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fc8e8



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	orderer.example.com
	peer0.org1.example.com
	peer0.org2.example.com
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
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
	[1m])) by (name) sum(rate(container_fs_reads_bytes_total{name=~".+"}

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

Benchmarking the InsertTestHistoricalDataOffer function with a data size of $1000\ \text{bytes}$ at a fixed rate.

txDuration: 60
rateControl:
 type: fixed-rate
 opts:
 tps: 60

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	3610	0	60.0	1.09	0.14	0.53	59.5

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- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fc8e8
		dev-peer0.org2.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fc8e8
		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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System under test

Details

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		couchdb1
		dev-peer0.org1.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fc8e8
		dev-peer0.org2.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fc8e8
		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: 60
rateControl:
 type: fixed-rate
 opts:
 tps: 60

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	3610	0	60.0	4.15	0.26	1.89	56.3

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- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fc8e8
		dev-peer0.org2.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fc8e8
		orderer.example.com
		peer0.org1.example.com



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System under test

<u>Details</u>

		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- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fc8e8
		dev-peer0.org2.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fc8e8
		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
  number: 10
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: 60
rateControl:
       type: fixed-rate
     opts:
tps: 60
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: 60 rateControl:
        type: fixed-rate
    opts:
    tps: 60
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: 60 rateControl: type: fixed-rate opts: tps: 60 workload: module: benchmarks/datamanagement/workloads/historical-data-offer.js arguments: chaincodeID: basic byteSize: 2000

SUT

not provided