

DLT: fabric

Name: insert-data-hash-

benchmark

Description: Benchmarking the Hyperledger Fabric network with the InsertTestDataHash function Benchmark Rounds: 4

Details

Benchmark results

Summary insert-data-hash insert-data-hash-100 insert-data-hash-1000 insert-data-hash-2000

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-data-hash	16	0	16.1	5.06	3.11	3.97	2.8
insert-data- hash-100	16	0	16.0	4.80	2.82	3.69	2.9
insert-data- hash-1000	16	0	16.0	4.79	2.79	3.67	2.9
insert-data- hash-2000	16	0	16.0	4.85	2.95	3.90	3.0

Benchmark round: insert-data-hash

Benchmarking the InsertTestDataHash function with specific parameters.

rateControl: type: fixed-rate opts: tps: 15

Performance metrics for insert-data-hash

Name	Succ	Fail	Send Rate (TPS)	Max Latency (s)	Min Latency (s)	Avg Latency (s)	Throughput (TPS)
insert-data- hash	16	0	16.1	5.06	3.11	3.97	2.8

Resource utilization for insert-data-hash

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		
		orderer.example.com		

Hyperledger Caliper Report



Basic information

DLT: fabric

Name: insert-data-hash-

benchmark

Description: Benchmarking the Hyperledger Fabric network with the InsertTestDataHash function

Benchmark Rounds: 4

Details

Benchmark results

Summary insert-data-hash insert-data-hash-100 insert-data-hash-2000 insert-data-hash-2000

System under test

Details

	nyperieuger Cali	hei vehoir
		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
		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 Read (MB)	sum(rate(container_fs_reads_bytes_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

Benchmark round: insert-data-hash-100

Test InsertTestDataHash function with asset size 100 bytes

txDuration: 1
rateControl:
 type: fixed-rate
 opts:
 tps: 15

Performance metrics for insert-data-hash-100

Name	Succ	Fail	Send Rate (TPS)	Max Latency (s)	Min Latency (s)	Avg Latency (s)	Throughput (TPS)
insert-data- hash-100	16	0	16.0	4.80	2.82	3.69	2.9

Resource utilization for insert-data-hash-100

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



DLT: fabric

Name: insert-data-hash-

benchmark

Description: Benchmarking the Hyperledger Fabric network with the InsertTestDataHash function

Benchmark Rounds: 4

Details

Benchmark results

Summary. insert-data-hash insert-data-hash-100 insert-data-hash-2000 insert-data-hash-2000

System under test

Details

dev-peer0.org2.example.com-basic_1.0- 06ae9571ee4eeadc6e99048d50ab0d2f300beed87dbecb5f570d58cf7a4f4 orderer.example.com		·	- Camper Report				
(%) (Iml)) by (name)			peer0.org2.example.com				
couchdb1 dev-peer0.org1.example.com-basic_1.0- 06se9571ee4eeadfc698048d50ab0d2f300beed87dbecb5f570d58cf7a4fd dev-peer0.org2.example.com-basic_1.0- 06se9571ee4eeadfc698048d50ab0d2f300beed87dbecb5f570d58cf7a4fd orderer.example.com peer0.org1.example.com peer0.org1.example.com peer0.org2.example.com ca_orderer Write (MB) sum(fate(container_fs_writes_bytes_total{name=~",+"}			ca_orderer				
dev-peer0.org1.example.com-basic_1.0- 06se9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4f6 dev-peer0.org2.example.com			couchdb0				
			couchdb1				
06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4f6 orderer.example.com peer0.org1.example.com peer0.org2.example.com peer0.org2.example.com peer0.org2.example.com peer0.org2.example.com peer0.org2.example.com peer0.org2.example.com ca_orderer ca_orderer couchdb0 couchdb1 dev-peer0.org1.example.com-basic_1.0-06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4f6 dev-peer0.org2.example.com-basic_1.0-06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4f6 orderer.example.com peer0.org2.example.com peer0.org2.example.com-basic_1.0-06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4f6 peer0.org2.example.com-basic_1.0-06ae9571ee4eadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4f6 peer0.org2.example.com-basic_1.0-06ae9571ee4eadc6e98048d50ab0d2f300bee			dev-peer0.org1.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fc8e8				
peer0.org1.example.com peer0.org2.example.com peer0.org2.example.com peer0.org2.example.com ca_orderer (MB) couchdb0 couchdb1 dev-peer0.org1.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4f6 dev-peer0.org2.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4f6 orderer.example.com peer0.org1.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4f6 orderer.example.com peer0.org1.example.com ca_orderer ca_orderer dev-peer0.org2.example.com peer0.org1.example.com peer0.org2.example.com dev-peer0.org1.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4f6 dev-peer0.org2.example.com-basic_1.0-			dev-peer0.org2.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fc8e8				
Disc Write (MB) sum(rate(container_fs_writes_bytes_total{name=~".+"} ca_orderer couchdb0 couchdb1 dev-peer0.org1.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4f6 dev-peer0.org2.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4f6 orderer.example.com peer0.org1.example.com peer0.org1.example.com ca_orderer ca_orderer ca_orderer ca_orderer couchdb0 couchdb0 couchdb1 dev-peer0.org1.example.com peer0.org2.example.com peer0.org1.example.com peer0.org1.example.com peer0.org2.example.com dev-peer0.org1.example.com peer0.org2.example.com			orderer.example.com				
Disc Write (MB) Sum(rate(container_fs_writes_bytes_total{name=~".+"} ca_orderer			peer0.org1.example.com				
write (MB) sum(rate(container_fs_writes_bytes_total {name=>,+-}} ca_orderer couchdb0 couchdb1 dev-peer0.org1.example.com-basic_1.0-			peer0.org2.example.com				
couchdb1 dev-peer0.org1.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fr dev-peer0.org2.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fr orderer.example.com peer0.org1.example.com peer0.org2.example.com peer0.org2.example.com ca_orderer ca_orderer ca_orderer couchdb0 couchdb1 dev-peer0.org1.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fr dev-peer0.org1.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fr dev-peer0.org2.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fr dev-peer0.org2.example.com-basic_1.0-	Write	_ ` ` = = = =	ca_orderer				
dev-peer0.org1.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fe dev-peer0.org2.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fe orderer.example.com peer0.org1.example.com peer0.org2.example.com peer0.org2.example.com ca_orderer ca_orderer couchdb0 couchdb1 dev-peer0.org1.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fe dev-peer0.org1.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fe dev-peer0.org2.example.com-basic_1.0-			couchdb0				
06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4f6 dev-peer0.org2.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4f6 orderer.example.com peer0.org1.example.com peer0.org2.example.com peer0.org1.example.com ca_orderer [1m])) by (name) ca_orderer couchdb0 couchdb1 dev-peer0.org1.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4f6 dev-peer0.org2.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4f6 dev-peer0.org2.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4f6			couchdb1				
O6ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fd orderer.example.com			dev-peer0.org1.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fc8e8				
peer0.org1.example.com peer0.org2.example.com Disc Read (MB)			dev-peer0.org2.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fc8e8				
peer0.org2.example.com Disc Read (MB) sum(rate(container_fs_reads_bytes_total{name=~".+"} ca_orderer couchdb0 couchdb1 dev-peer0.org1.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fd dev-peer0.org2.example.com-basic_1.0-			orderer.example.com				
Disc Read (MB) sum(rate(container_fs_reads_bytes_total{name=~".+"} ca_orderer couchdb0 couchdb1 dev-peer0.org1.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fd dev-peer0.org2.example.com-basic_1.0-			peer0.org1.example.com				
Read (MB) sum(rate(container_is_reads_bytes_total{name=~".+"}} ca_orderer ca_orderer couchdb0 couchdb1 dev-peer0.org1.example.com-basic_1.0-06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fd dev-peer0.org2.example.com-basic_1.0-			peer0.org2.example.com				
couchdb1 dev-peer0.org1.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4feddev-peer0.org2.example.com-basic_1.0-	Read		ca_orderer				
dev-peer0.org1.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fc dev-peer0.org2.example.com-basic_1.0-			couchdb0				
06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fd dev-peer0.org2.example.com-basic_1.0-			couchdb1				
			dev-peer0.org1.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fc8e8				
Ubae95/1ee4eeadcbe98048d50ab0d2t300beed8/dbecb5t5/0d58ct/a4frc			dev-peer0.org2.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fc8e8				
orderer.example.com			orderer.example.com				
peer0.org1.example.com			peer0.org1.example.com				
peer0.org2.example.com			peer0.org2.example.com				

Benchmark round: insert-data-hash-1000

Test InsertTestDataHash function with asset size 1000 bytes

txDuration: 1
rateControl:
 type: fixed-rate
 opts:
 tps: 15

Performance metrics for insert-data-hash-1000

Name	Succ	Fail	Send Rate (TPS)	Max Latency (s)	Min Latency (s)	Avg Latency (s)	Throughput (TPS)
insert-data- hash-1000	16	0	16.0	4.79	2.79	3.67	2.9

Resource utilization for insert-data-hash-1000

Metric	Prometheus Query	Name



DLT: fabric

Name: insert-data-hash-

benchmark

Description: Benchmarking the Hyperledger Fabric network with the InsertTestDataHash function Benchmark Rounds: 4

Details

Benchmark results

Summary, insert-data-hash insert-data-hash-100 insert-data-hash-2000 insert-data-hash-2000

System under test

Details

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
		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
		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 Read (MB)	sum(rate(container_fs_reads_bytes_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

Benchmark round: insert-data-hash-2000

Test InsertTestDataHash function with asset size 2000 bytes

txDuration: 1
rateControl:
 type: fixed-rate
 opts:
 tps: 15



DLT: fabric

Name: insert-data-hash-

benchmark

Description: Benchmarking the Hyperledger Fabric network with the InsertTestDataHash function

Benchmark Rounds: 4

Details

Benchmark results

Summary. insert-data-hash insert-data-hash-100 insert-data-hash-2000 insert-data-hash-2000

System under test

Details

Performance metrics for insert-data-hash-2000

Name	Succ	Fail	Send Rate (TPS)	Max Latency (s)	Min Latency (s)	Avg Latency (s)	Throughput (TPS)
insert-data- hash-2000	16	0	16.0	4.85	2.95	3.90	3.0

Resource utilization for insert-data-hash-2000

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- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fc8e6
		dev-peer0.org2.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fc8e6
		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- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fc8ed
		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
		dev-peer0.org1.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fc8e6
		dev-peer0.org2.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fc8ed
		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
		dev-peer0.org1.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fc8e8
		dev-peer0.org2.example.com-basic_1.0- 06ae9571ee4eeadc6e98048d50ab0d2f300beed87dbecb5f570d58cf7a4fc8e8
		orderer.example.com



Basic information	Test E

DLT: fabric

Name: insert-data-hash-

benchmark

Description: Benchmarking the Hyperledger Fabric network with the InsertTestDataHash function Benchmark Rounds: 4

Details

Benchmark results

Summary

insert-data-hash

insert-data-hash-100

insert-data-hash-1000

insert-data-hash-2000

System under test

Details

	peer0.org1.example.com
	peer0.org2.example.com

Test Environment

benchmark config

```
name: insert-data-hash-benchmark
description: >
  Benchmarking the Hyperledger Fabric network with the InsertTestDataHash
  function
workers:
  number: 1
rounds:
    label: insert-data-hash
    \ description: \ Benchmarking \ the \ InsertTestDataHash \ function \ with \ specific
parameters.
     chaincodeID: basic
     txDuration: 1
rateControl:
       type: fixed-rate
opts:
    tps: 15
       module: benchmarks/datamanagement/workloads/insert-data-hash.js
       \hbox{arguments:}
    chaincodeID: basic
label: insert-data-hash-100
description: Test InsertTestDataHash function with asset size 100 bytes
chaincodeID: basic
     txDuration: 1
     rateControl:
       type: fixed-rate
       opts:
tps: 15
    workload:
  module: benchmarks/datamanagement/workloads/insert-data-hash.js
       arguments:
         chaincodeID: basic
byteSize: 100
    label: insert-data-hash-1000
description: Test InsertTestDataHash function with asset size 1000 bytes
chaincodeID: basic
     txDuration: 1
     rateControl:
       type: fixed-rate
       opts:
    tps: 15
workload:
       module: benchmarks/datamanagement/workloads/insert-data-hash.js
       arguments:
   chaincodeID: basic
    byteSize: 1000
label: insert-data-hash-2000
description: Test InsertTestDataHash function with asset size 2000 bytes
     chaincodeID: basic
txDuration: 1
     rateControl:
       type: fixed-rate
opts:
    tps: 15
workload:
       module: benchmarks/datamanagement/workloads/insert-data-hash.js
       arguments:
          chaincodeID: basic
          byteSize: 2000
```

SUT

not provided