



## Basic information

DLT: fabric

Name: insert-data-hash-benchmark

Description: Benchmarking the Hyperledger Fabric network with the InsertHistoricalDataHash function

Benchmark Rounds: 8

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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-data-hash	910	0	15.1	0.59	0.07	0.20	15.1
insert-data-hash-100	2604	0	44.6	2.09	0.08	0.29	43.1
insert-data-hash-1000	2690	0	46.0	0.88	0.08	0.39	45.9
insert-data-hash-4000	2842	0	48.5	2.09	0.09	0.49	47.0
insert-data-hash-8000	2840	0	48.4	1.05	0.09	0.59	48.3
insert-data-hash-16000	2946	0	50.0	2.10	0.12	0.65	48.6
insert-data-hash-32000	3019	0	50.7	2.11	0.08	0.81	49.9
insert-data-hash-64000	3009	0	50.3	2.43	0.10	0.87	49.8

## Benchmark round: insert-data-hash

Benchmarking the InsertHistoricalDataHash function with specific parameters.



txDuration: 60  
rateControl:  
  type: fixed-rate  
  opts:  
    tps: 15

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## 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	910	0	15.1	0.59	0.07	0.20	15.1

## Resource utilization for insert-data-hash

Resource monitor: prometheus

Metric	Prometheus Query	Name	Value
Avg Memory (MB)	sum(container_memory_rss{name=~".+"}) by (name)	ca_orderer	6.70
		couchdb0	55.7
		couchdb1	54.9
		dev-peer0.org1.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	34.4
		dev-peer0.org2.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	33.3
		orderer.example.com	47.2
		peer0.org1.example.com	90.7
		peer0.org2.example.com	87.5
CPU (%)	sum(rate(container_cpu_usage_seconds_total{name=~".+"}[1m])) by (name)	ca_orderer	0.00366



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		couchdb0	9.60
		couchdb1	9.35
		dev-peer0.org1.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	1.06
		dev-peer0.org2.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	1.15
		orderer.example.com	1.64
		peer0.org1.example.com	5.86
		peer0.org2.example.com	5.49
Disc Write (MB)	sum(rate(container_fs_writes_bytes_total{name=~".+"}[1m])) by (name)	ca_orderer	0.00
		couchdb0	0.240
		couchdb1	0.241
		dev-peer0.org1.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	0.00
		dev-peer0.org2.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	0.00
		orderer.example.com	0.534
		peer0.org1.example.com	0.329
		peer0.org2.example.com	0.328
Disc Read (MB)	sum(rate(container_fs_reads_bytes_total{name=~".+"}[1m])) by (name)	ca_orderer	0.00
		couchdb0	0.000819
		couchdb1	0.00
		dev-peer0.org1.example.com-basic_1.0-	0.00



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	69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	
	dev-peer0.org2.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	0.00149
	orderer.example.com	0.00894
	peer0.org1.example.com	0.00
	peer0.org2.example.com	0.00164

## Benchmark round: insert-data-hash-100

Test InsertHistoricalDataHash function with data hash size 100 bytes

```
txDuration: 60
rateControl:
  type: fixed-load
  opts:
    transactionLoad: 10
    startingTps: 1
```

## 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	2604	0	44.6	2.09	0.08	0.29	43.1

## Resource utilization for insert-data-hash-100

Resource monitor: prometheus

Metric	Prometheus Query	Name	Value
Avg Memory (MB)	sum(container_memory_rss{name=~".+"}) by (name)	ca_orderer	6.70



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		couchdb0	61.6
		couchdb1	61.2
		dev-peer0.org1.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	36.3
		dev-peer0.org2.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	35.7
		orderer.example.com	50.6
		peer0.org1.example.com	106
		peer0.org2.example.com	88.5
CPU (%)	sum(rate(container_cpu_usage_seconds_total{name=~".+"}[1m])) by (name)	ca_orderer	0.00248
		couchdb0	32.5
		couchdb1	33.1
		dev-peer0.org1.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	3.74
		dev-peer0.org2.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	3.58
		orderer.example.com	4.47
		peer0.org1.example.com	14.3
		peer0.org2.example.com	13.5
Disc Write (MB)	sum(rate(container_fs_writes_bytes_total{name=~".+"}[1m])) by (name)	ca_orderer	0.00
		couchdb0	1.17
		couchdb1	1.19
		dev-peer0.org1.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	0.00



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		dev-peer0.org2.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	0.00
		orderer.example.com	1.99
		peer0.org1.example.com	1.22
		peer0.org2.example.com	1.23
Disc Read (MB)	sum(rate(container_fs_reads_bytes_total{name=~".+"}[1m])) by (name)	ca_orderer	0.00
		couchdb0	0.000894
		couchdb1	0.00194
		dev-peer0.org1.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	0.00
		dev-peer0.org2.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	0.00372
		orderer.example.com	0.00775
		peer0.org1.example.com	0.00685
		peer0.org2.example.com	0.00663

## Benchmark round: insert-data-hash-1000

Test InsertHistoricalDataHash function with data hash size 1000 bytes

```
txDuration: 60
rateControl:
  type: fixed-load
  opts:
    transactionLoad: 20
    startingTps: 1
```

## Performance metrics for insert-data-hash-1000



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DLT: fabric

Name: insert-data-hash-benchmark

Description: Benchmarking the Hyperledger Fabric network with the InsertHistoricalDataHash function

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## Hyperledger Caliper Report

Name	Succ	Fail	Send Rate (TPS)	Max Latency (s)	Min Latency (s)	Avg Latency (s)	Throughput (TPS)
insert-data-hash-1000	2690	0	46.0	0.88	0.08	0.39	45.9

## Resource utilization for insert-data-hash-1000

Resource monitor: prometheus

Metric	Prometheus Query	Name	Value
Avg Memory (MB)	sum(container_memory_rss{name=~".+"}) by (name)	ca_orderer	6.70
		couchdb0	72.9
		couchdb1	71.3
		dev-peer0.org1.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	36.1
		dev-peer0.org2.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	36.1
		orderer.example.com	49.1
		peer0.org1.example.com	120
		peer0.org2.example.com	90.4
CPU (%)	sum(rate(container_cpu_usage_seconds_total{name=~".+"}[1m])) by (name)	ca_orderer	0.000707
		couchdb0	49.1
		couchdb1	47.6
		dev-peer0.org1.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	4.64
		dev-peer0.org2.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	4.52



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		orderer.example.com	5.92
		peer0.org1.example.com	18.2
		peer0.org2.example.com	17.0
Disc Write (MB)	sum(rate(container_fs_writes_bytes_total{name=~".+"}[1m])) by (name)	ca_orderer	0.00
		couchdb0	2.42
		couchdb1	2.36
		dev-peer0.org1.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	0.00
		dev-peer0.org2.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	0.00
		orderer.example.com	2.78
		peer0.org1.example.com	1.69
		peer0.org2.example.com	1.70
Disc Read (MB)	sum(rate(container_fs_reads_bytes_total{name=~".+"}[1m])) by (name)	ca_orderer	0.00
		couchdb0	0.00290
		couchdb1	0.00335
		dev-peer0.org1.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	0.00387
		dev-peer0.org2.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	0.00
		orderer.example.com	0.00439
		peer0.org1.example.com	0.00164
		peer0.org2.example.com	0.00432





## Benchmark round: insert-data-hash-4000

Test InsertHistoricalDataHash function with data hash size 4000 bytes

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DLT: fabric

Name: insert-data-hash-benchmark

Description: Benchmarking the Hyperledger Fabric network with the InsertHistoricalDataHash function

Benchmark Rounds: 8

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```
txDuration: 60
rateControl:
  type: fixed-load
opts:
  transactionLoad: 30
  startingTps: 1
```

### Performance metrics for insert-data-hash-4000

Name	Succ	Fail	Send Rate (TPS)	Max Latency (s)	Min Latency (s)	Avg Latency (s)	Throughput (TPS)
insert-data-hash-4000	2842	0	48.5	2.09	0.09	0.49	47.0

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### Resource utilization for insert-data-hash-4000

Resource monitor: prometheus

Metric	Prometheus Query	Name	Value
Avg Memory (MB)	sum(container_memory_rss{name=~".+"}) by (name)	ca_orderer	6.70
		couchdb0	83.7
		couchdb1	83.0
		dev-peer0.org1.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	36.4
		dev-peer0.org2.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	36.8
		orderer.example.com	49.9

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		peer0.org1.example.com	125
		peer0.org2.example.com	96.4
CPU (%)	sum(rate(container_cpu_usage_seconds_total{name=~".+"}[1m])) by (name)	ca_orderer	0.00723
		couchdb0	54.8
		couchdb1	53.0
		dev-peer0.org1.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	4.60
		dev-peer0.org2.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	4.19
		orderer.example.com	6.11
		peer0.org1.example.com	18.9
		peer0.org2.example.com	17.4
Disc Write (MB)	sum(rate(container_fs_writes_bytes_total{name=~".+"}[1m])) by (name)	ca_orderer	0.00
		couchdb0	3.41
		couchdb1	3.22
		dev-peer0.org1.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	0.00
		dev-peer0.org2.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	0.00
		orderer.example.com	2.95
		peer0.org1.example.com	1.80
		peer0.org2.example.com	1.80
Disc Read	sum(rate(container_fs_reads_bytes_total{name=~".+"}[1m])) by (name)	ca_orderer	0.00



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(MB)			
		couchdb0	0.00298
		couchdb1	0.00343
		dev-peer0.org1.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	0.00581
		dev-peer0.org2.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	0.000894
		orderer.example.com	0.0415
		peer0.org1.example.com	0.00894
		peer0.org2.example.com	0.0209

## Benchmark round: insert-data-hash-8000

Test InsertHistoricalDataHash function with data hash size 8000 bytes

```
txDuration: 60
rateControl:
  type: fixed-load
  opts:
    transactionLoad: 40
    startingTps: 1
```

## Performance metrics for insert-data-hash-8000

Name	Succ	Fail	Send Rate (TPS)	Max Latency (s)	Min Latency (s)	Avg Latency (s)	Throughput (TPS)
insert-data-hash-8000	2840	0	48.4	1.05	0.09	0.59	48.3

## Resource utilization for insert-data-hash-8000

Resource monitor: prometheus



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Benchmark Rounds: 8

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Metric	Prometheus Query	Name	Value
Avg Memory (MB)	sum(container_memory_rss{name=~".+"}) by (name)	ca_orderer	6.70
		couchdb0	89.1
		couchdb1	86.9
		dev-peer0.org1.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	36.3
		dev-peer0.org2.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	37.0
		orderer.example.com	46.4
		peer0.org1.example.com	138
		peer0.org2.example.com	104
CPU (%)	sum(rate(container_cpu_usage_seconds_total{name=~".+"}[1m])) by (name)	ca_orderer	0.000047
		couchdb0	55.4
		couchdb1	55.9
		dev-peer0.org1.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	4.54
		dev-peer0.org2.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	4.49
		orderer.example.com	6.10
		peer0.org1.example.com	19.1
		peer0.org2.example.com	17.6
Disc Write (MB)	sum(rate(container_fs_writes_bytes_total{name=~".+"}[1m])) by (name)	ca_orderer	0.00



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		couchdb0	3.69
		couchdb1	3.94
		dev-peer0.org1.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	0.00
		dev-peer0.org2.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	0.00
		orderer.example.com	3.00
		peer0.org1.example.com	1.84
		peer0.org2.example.com	1.85
Disc Read (MB)	sum(rate(container_fs_reads_bytes_total{name=~".+"}[1m])) by (name)	ca_orderer	0.00
		couchdb0	0.00149
		couchdb1	0.00745
		dev-peer0.org1.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	0.00
		dev-peer0.org2.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	0.000596
		orderer.example.com	0.289
		peer0.org1.example.com	0.0775
		peer0.org2.example.com	0.123

## Benchmark round: insert-data-hash-16000

Test InsertHistoricalDataHash function with data hash size 16000 bytes

```
txDuration: 60
rateControl:
  type: fixed-load
```



opts:  
transactionLoad: 50  
startingTps: 1

## Performance metrics for insert-data-hash-16000

Name	Succ	Fail	Send Rate (TPS)	Max Latency (s)	Min Latency (s)	Avg Latency (s)	Throughput (TPS)
insert-data-hash-16000	2946	0	50.0	2.10	0.12	0.65	48.6

## Basic information

DLT: fabric

Name: insert-data-hash-benchmark

Description: Benchmarking the Hyperledger Fabric network with the InsertHistoricalDataHash function

Benchmark Rounds: 8

[Details](#)

## Benchmark results

[Summary](#)

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[insert-data-hash-1000](#)

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[insert-data-hash-64000](#)

## System under test

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## Resource utilization for insert-data-hash-16000

Resource monitor: prometheus

Metric	Prometheus Query	Name	Value
Avg Memory (MB)	sum(container_memory_rss{name=~".+"}) by (name)	ca_orderer	6.70
		couchdb0	88.1
		couchdb1	88.0
		dev-peer0.org1.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	35.1
		dev-peer0.org2.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	37.4
		orderer.example.com	53.6
		peer0.org1.example.com	146
		peer0.org2.example.com	108
CPU (%)	sum(rate(container_cpu_usage_seconds_total{name=~".+"}[1m])) by (name)	ca_orderer	0.00223
		couchdb0	55.9



## Basic information

DLT: fabric

Name: insert-data-hash-benchmark

Description: Benchmarking the Hyperledger Fabric network with the InsertHistoricalDataHash function

Benchmark Rounds: 8

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## Benchmark results

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## System under test

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## Hyperledger Caliper Report

		couchdb1	56.8
		dev-peer0.org1.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	4.51
		dev-peer0.org2.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	4.28
		orderer.example.com	6.29
		peer0.org1.example.com	19.8
		peer0.org2.example.com	17.9
Disc Write (MB)	sum(rate(container_fs_writes_bytes_total{name=~".+"}[1m])) by (name)	ca_orderer	0.00
		couchdb0	3.71
		couchdb1	3.87
		dev-peer0.org1.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	0.00
		dev-peer0.org2.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	0.00
		orderer.example.com	3.12
		peer0.org1.example.com	1.92
		peer0.org2.example.com	1.91
Disc Read (MB)	sum(rate(container_fs_reads_bytes_total{name=~".+"}[1m])) by (name)	ca_orderer	0.00
		couchdb0	0.00231
		couchdb1	0.00149
		dev-peer0.org1.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	0.00



## Basic information

DLT: fabric

Name: insert-data-hash-benchmark

Description: Benchmarking the Hyperledger Fabric network with the InsertHistoricalDataHash function

Benchmark Rounds: 8

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## Benchmark results

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## System under test

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## Hyperledger Caliper Report

		dev-peer0.org2.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	0.0299
		orderer.example.com	0.179
		peer0.org1.example.com	0.00469
		peer0.org2.example.com	0.0153

## Benchmark round: insert-data-hash-32000

Test InsertHistoricalDataHash function with data hash size 32000 bytes

```
txDuration: 60
rateControl:
  type: fixed-load
  opts:
    transactionLoad: 60
    startingTps: 1
```

## Performance metrics for insert-data-hash-32000

Name	Succ	Fail	Send Rate (TPS)	Max Latency (s)	Min Latency (s)	Avg Latency (s)	Throughput (TPS)
insert-data-hash-32000	3019	0	50.7	2.11	0.08	0.81	49.9

## Resource utilization for insert-data-hash-32000

Resource monitor: prometheus

Metric	Prometheus Query	Name	Value
Avg Memory (MB)	sum(container_memory_rss{name=~".+"}) by (name)	ca_orderer	6.70
		couchdb0	93.9





## Basic information

DLT: fabric

Name: insert-data-hash-benchmark

Description: Benchmarking the Hyperledger Fabric network with the InsertHistoricalDataHash function

Benchmark Rounds: 8

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## Benchmark results

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## System under test

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## Hyperledger Caliper Report

		couchdb1	94.8
		dev-peer0.org1.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	36.3
		dev-peer0.org2.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	36.4
		orderer.example.com	50.3
		peer0.org1.example.com	158
		peer0.org2.example.com	106
CPU (%)	sum(rate(container_cpu_usage_seconds_total{name=~".+"}[1m])) by (name)	ca_orderer	0.00223
		couchdb0	56.7
		couchdb1	54.9
		dev-peer0.org1.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	4.46
		dev-peer0.org2.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	4.29
		orderer.example.com	6.33
		peer0.org1.example.com	19.7
		peer0.org2.example.com	18.2
Disc Write (MB)	sum(rate(container_fs_writes_bytes_total{name=~".+"}[1m])) by (name)	ca_orderer	0.00
		couchdb0	3.74
		couchdb1	3.61
		dev-peer0.org1.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	0.00
		dev-peer0.org2.example.com-basic_1.0-	0.00



## Basic information

DLT: fabric

Name: insert-data-hash-benchmark

Description: Benchmarking the Hyperledger Fabric network with the InsertHistoricalDataHash function

Benchmark Rounds: 8

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## Benchmark results

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## System under test

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## Hyperledger Caliper Report

		69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	
		orderer.example.com	3.16
		peer0.org1.example.com	1.93
		peer0.org2.example.com	1.93
Disc Read (MB)	sum(rate(container_fs_reads_bytes_total{name=~".+"}[1m])) by (name)	ca_orderer	0.00
		couchdb0	0.00156
		couchdb1	0.000521
		dev-peer0.org1.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	0.00268
		dev-peer0.org2.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	0.0297
		orderer.example.com	0.290
		peer0.org1.example.com	0.00
		peer0.org2.example.com	0.000298

## Benchmark round: insert-data-hash-64000

Test InsertHistoricalDataHash function with data hash size 64000 bytes

```
txDuration: 60
rateControl:
  type: fixed-load
  opts:
    transactionLoad: 70
    startingTps: 1
```

## Performance metrics for insert-data-hash-64000



Name	Succ	Fail	Send Rate (TPS)	Max Latency (s)	Min Latency (s)	Avg Latency (s)	Throughput (TPS)
insert-data-hash-64000	3009	0	50.3	2.43	0.10	0.87	49.8

Basic information

DLT: fabric  
Name: insert-data-hash-benchmark  
Description: Benchmarking the Hyperledger Fabric network with the InsertHistoricalDataHash function  
Benchmark Rounds: 8  
[Details](#)

Benchmark results

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System under test

[Details](#)

Resource utilization for insert-data-hash-64000

Resource monitor: prometheus

Metric	Prometheus Query	Name	Value
Avg Memory (MB)	sum(container_memory_rss{name=~".+"}) by (name)	ca_orderer	6.70
		couchdb0	92.9
		couchdb1	95.3
		dev-peer0.org1.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	36.5
		dev-peer0.org2.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	36.8
		orderer.example.com	53.7
		peer0.org1.example.com	165
		peer0.org2.example.com	116
CPU (%)	sum(rate(container_cpu_usage_seconds_total{name=~".+"}[1m])) by (name)	ca_orderer	0.00231
		couchdb0	54.4
		couchdb1	54.7
		dev-peer0.org1.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	4.24
		dev-peer0.org2.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	4.27



## Basic information

DLT: fabric

Name: insert-data-hash-benchmark

Description: Benchmarking the Hyperledger Fabric network with the InsertHistoricalDataHash function

Benchmark Rounds: 8

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## Benchmark results

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## System under test

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## Hyperledger Caliper Report

		orderer.example.com	6.22
		peer0.org1.example.com	19.4
		peer0.org2.example.com	17.9
Disc Write (MB)	sum(rate(container_fs_writes_bytes_total{name=~".+"}[1m])) by (name)	ca_orderer	0.00
		couchdb0	3.50
		couchdb1	3.54
		dev-peer0.org1.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	0.00
		dev-peer0.org2.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	0.00
		orderer.example.com	3.11
		peer0.org1.example.com	1.89
		peer0.org2.example.com	1.91
Disc Read (MB)	sum(rate(container_fs_reads_bytes_total{name=~".+"}[1m])) by (name)	ca_orderer	0.00
		couchdb0	0.00253
		couchdb1	0.0146
		dev-peer0.org1.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	0.00432
		dev-peer0.org2.example.com-basic_1.0-69c185f1de922b69658b5c353004067819666dc07f0ba6fbc50c353de0a9304	0.00417
		orderer.example.com	0.0232
		peer0.org1.example.com	0.00156
		peer0.org2.example.com	0.00



## Test Environment

### benchmark config

#### Basic information

DLT: fabric

Name: insert-data-hash-benchmark

Description: Benchmarking the Hyperledger Fabric network with the InsertHistoricalDataHash function

Benchmark Rounds: 8

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#### Benchmark results

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[insert-data-hash-64000](#)

#### System under test

[Details](#)

```
name: insert-data-hash-benchmark
description: >-
  Benchmarking the Hyperledger Fabric network with the InsertHistoricalDataHash
  function
workers:
  number: 10
rounds:
  - label: insert-data-hash
    description: >-
      Benchmarking the InsertHistoricalDataHash function with specific
      parameters.
    chaincodeID: basic
    txDuration: 60
    rateControl:
      type: fixed-rate
      opts:
        tps: 15
    workload:
      module: benchmarks/datamanagement/workloads/insert-data-hash.js
      arguments:
        chaincodeID: basic
  - label: insert-data-hash-100
    description: Test InsertHistoricalDataHash function with data hash size 100 bytes
    chaincodeID: basic
    txDuration: 60
    rateControl:
      type: fixed-load
      opts:
        transactionLoad: 10
        startingTps: 1
    workload:
      module: benchmarks/datamanagement/workloads/insert-data-hash.js
      arguments:
        chaincodeID: basic
        byteSize: 100
  - label: insert-data-hash-1000
    description: Test InsertHistoricalDataHash function with data hash size 1000 bytes
    chaincodeID: basic
    txDuration: 60
    rateControl:
      type: fixed-load
      opts:
        transactionLoad: 20
        startingTps: 1
    workload:
```



## Basic information

DLT: fabric

Name: insert-data-hash-benchmark

Description: Benchmarking the Hyperledger Fabric network with the InsertHistoricalDataHash function

Benchmark Rounds: 8

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## Benchmark results

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[insert-data-hash-64000](#)

## System under test

[Details](#)

```

module: benchmarks/datamanagement/workloads/insert-data-hash.js
arguments:
  chaincodeID: basic
  byteSize: 1000
- label: insert-data-hash-4000
  description: Test InsertHistoricalDataHash function with data hash size 4000 bytes
  chaincodeID: basic
  txDuration: 60
  rateControl:
    type: fixed-load
  opts:
    transactionLoad: 30
    startingTps: 1
  workload:
    module: benchmarks/datamanagement/workloads/insert-data-hash.js
    arguments:
      chaincodeID: basic
      byteSize: 4000
- label: insert-data-hash-8000
  description: Test InsertHistoricalDataHash function with data hash size 8000 bytes
  chaincodeID: basic
  txDuration: 60
  rateControl:
    type: fixed-load
  opts:
    transactionLoad: 40
    startingTps: 1
  workload:
    module: benchmarks/datamanagement/workloads/insert-data-hash.js
    arguments:
      chaincodeID: basic
      byteSize: 8000
- label: insert-data-hash-16000
  description: Test InsertHistoricalDataHash function with data hash size 16000 bytes
  chaincodeID: basic
  txDuration: 60
  rateControl:
    type: fixed-load
  opts:
    transactionLoad: 50
    startingTps: 1
  workload:
    module: benchmarks/datamanagement/workloads/insert-data-hash.js
    arguments:
      chaincodeID: basic
      byteSize: 16000
- label: insert-data-hash-32000
  description: Test InsertHistoricalDataHash function with data hash size 32000 bytes
  chaincodeID: basic
  txDuration: 60
  rateControl:
    type: fixed-load
  opts:
    transactionLoad: 60

```



## Basic information

DLT: fabric

Name: insert-data-hash-benchmark

Description: Benchmarking the Hyperledger Fabric network with the InsertHistoricalDataHash function

Benchmark Rounds: 8

[Details](#)

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## Benchmark results

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[insert-data-hash-32000](#)

[insert-data-hash-64000](#)

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## System under test

[Details](#)

---

```
      startingTps: 1
workload:
  module: benchmarks/datamanagement/workloads/insert-data-hash.js
  arguments:
    chaincodeID: basic
    byteSize: 32000
- label: insert-data-hash-64000
  description: Test InsertHistoricalDataHash function with data hash size 64000 bytes
  chaincodeID: basic
  txDuration: 60
  rateControl:
    type: fixed-load
    opts:
      transactionLoad: 70
      startingTps: 1
workload:
  module: benchmarks/datamanagement/workloads/insert-data-hash.js
  arguments:
    chaincodeID: basic
    byteSize: 64000
```

SUT

not provided

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