

DLT: fabric

Name: get-data-offers

Description: This is a duration based benchmark targeting a Hyperledger Fabric network using the 'basic' NodeJS chaincode contract that is interacted with via a Fabric-SDK-Node Gateway. Each test round invokes the 'GetAllOffer()' API method.

Benchmark Rounds: 9

Details

Benchmark results

Summary
get-data-offer-evaluate
get-data-offer-evaluate-100
get-data-offer-evaluate-2000
get-data-offer-evaluate-4000
get-data-offer-evaluate-8000
get-data-offer-evaluate-16000
get-data-offer-evaluate-32000
get-data-offer-evaluate-32000
get-data-offer-evaluate-64000

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)
get-data-offer- evaluate	425	0	7.4	23.91	0.34	17.70	5.9
get-data-offer- evaluate-100	433	0	6.2	24.30	0.22	17.90	6.1
get-data-offer- evaluate-1000	426	0	7.4	24.78	0.37	18.16	6.0
get-data-offer- evaluate-2000	411	0	5.9	20.33	0.29	15.32	5.9
get-data-offer- evaluate-4000	424	0	6.4	22.36	0.18	16.88	6.1
get-data-offer- evaluate-8000	423	0	6.9	21.54	1.12	16.23	6.1
get-data-offer- evaluate-16000	418	0	6.5	21.35	0.27	16.08	6.0
get-data-offer- evaluate-32000	429	0	5.5	23.68	0.21	17.90	5.5
get-data-offer- evaluate-64000	421	0	7.1	22.06	0.35	16.86	6.1

Benchmark round: get-data-offer-evaluate

Test an evaluateTransaction() Gateway method against the NodeJS `basic` Smart Contract method named `GetAlldata-offer`. This method retrieves all data-offer schedules from the ledger.

txDuration: 60 rateControl: type: fixed-load opts: transactionLoad: 20

Performance metrics for get-data-offer-evaluate

Name	Succ	Fail	Send Rate (TPS)	Max Latency (s)	Min Latency (s)	Avg Latency (s)	Throughput (TPS)
get-data-offer- evaluate	425	0	7.4	23.91	0.34	17.70	5.9

Resource utilization for get-data-offer-evaluate

Metric	Prometheus Query	Name
Avg Memory (MB)	sum(container_memory_rss{name=~".+"}) by (name)	ca_orderer
		couchdb0
		couchdb1
		dev-peer0.org1.example.com-basic_1.0-637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		dev-peer0.org2.example.com-basic_1.0-637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		orderer.example.com
		peer0.org1.example.com



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get-data-offer-evaluate-8000
get-data-offer-evaluate-16000
get-data-offer-evaluate-32000
get-data-offer-evaluate-32000
get-data-offer-evaluate-64000

System under test

Details

		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_1.0-637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		dev-peer0.org2.example.com-basic_1.0- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		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_1.0-637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		dev-peer0.org2.example.com-basic_1.0- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		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- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		dev-peer0.org2.example.com-basic_1.0- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		orderer.example.com
		peer0.org1.example.com
		peer0.org2.example.com

Benchmark round: get-data-offer-evaluate-100

Test an evaluateTransaction() Gateway method against the NodeJS `basic` Smart Contract method named `GetAlldata-offer`. This method retrieves all data-offer schedules from the ledger.

txDuration: 60
rateControl:
 type: fixed-load
 opts:
 transactionLoad: 20

Name	Succ	Fail	Send Rate (TPS)	Max Latency (s)	Min Latency (s)	Avg Latency (s)	Throughput (TPS)
get-data-offer- evaluate-100	433	0	6.2	24.30	0.22	17.90	6.1

Resource utilization for get-data-offer-evaluate-100

Performance metrics for get-data-offer-evaluate-100

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



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Details

Benchmark results

summary,
get-data-offer-evaluate
get-data-offer-evaluate-100
get-data-offer-evaluate-2000
get-data-offer-evaluate-2000
get-data-offer-evaluate-4000
get-data-offer-evaluate-8000
get-data-offer-evaluate-16000
get-data-offer-evaluate-32000
get-data-offer-evaluate-32000
get-data-offer-evaluate-64000

System under test

Details

Memory	Hyperleager Call	
(MB)		<u> </u>
		couchdb0
		couchdb1
		dev-peerl.org1.example.com-basic_1.0- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		dev-peer0.org2.example.com-basic_1.0-637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		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_1.0-637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		dev-peer0.org2.example.com-basic_1.0-637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		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_1.0-637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		dev-peer0.org2.example.com-basic_1.0- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		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_1.0-637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		dev-peer0.org2.example.com-basic_1.0- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		orderer.example.com
		peer0.org1.example.com

Benchmark round: get-data-offer-evaluate-1000

Test an evaluateTransaction() Gateway method against the NodeJS `basic` Smart Contract method named `GetAlldata-offer`. This method retrieves all data-offer schedules from the ledger.

txDuration: 60 rateControl: type: fixed-load opts: transactionLoad: 20



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Benchmark Rounds: 9

Details

Benchmark results

Summary,
get-data-offer-evaluate
get-data-offer-evaluate-100
get-data-offer-evaluate-2000
get-data-offer-evaluate-2000
get-data-offer-evaluate-4000
get-data-offer-evaluate-8000
get-data-offer-evaluate-16000
get-data-offer-evaluate-32000
get-data-offer-evaluate-64000

System under test

Details

Performance metrics for get-data-offer-evaluate-1000

Name	Succ	Fail	Send Rate (TPS)	Max Latency (s)	Min Latency (s)	Avg Latency (s)	Throughput (TPS)
get-data-offer- evaluate-1000	426	0	7.4	24.78	0.37	18.16	6.0

Resource utilization for get-data-offer-evaluate-1000

monitor: prometheus	
Prometheus Query	Name
sum(container_memory_rss{name=~".+"}) by (name)	ca_orderer
	couchdb0
	couchdb1
	dev-peer0.org1.example.com-basic_1.0- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
	dev-peer0.org2.example.com-basic_1.0- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
	orderer.example.com
	peer0.org1.example.com
	peer0.org2.example.com
sum(rate(container_cpu_usage_seconds_total{name=~".+"} [1m])) by (name)	ca_orderer
	couchdb0
	couchdb1
	dev-peer0.org1.example.com-basic_1.0- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
	dev-peer0.org2.example.com-basic_1.0- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
	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
	dev-peer0.org1.example.com-basic_1.0- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
	dev-peer0.org2.example.com-basic_1.0- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
	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
	dev-peer0.org1.example.com-basic_1.0- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
	dev-peer0.org2.example.com-basic_1.0- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
	orderer.example.com
	peer0.org1.example.com
	sum(container_memory_rss{name=~".+"}) by (name) sum(rate(container_cpu_usage_seconds_total{name=~".+"} [1m])) by (name) sum(rate(container_fs_writes_bytes_total{name=~".+"} [1m])) by (name) sum(rate(container_fs_writes_bytes_total{name=~".+"} sum(rate(container_fs_reads_bytes_total{name=~".+"})



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get-data-offer-evaluate-8000
get-data-offer-evaluate-16000
get-data-offer-evaluate-32000
get-data-offer-evaluate-32000
get-data-offer-evaluate-64000

System under test

Details

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	peer0.org2.example.com

Benchmark round: get-data-offer-evaluate-2000

Test an evaluateTransaction() Gateway method against the NodeJS `basic` Smart Contract method named `GetAlldata-offer`. This method retrieves all data-offer schedules from the ledger.

txDuration: 60
rateControl:
 type: fixed-load
 opts:
 transactionLoad: 20

Performance metrics for get-data-offer-evaluate-2000

Name	Succ	Fail	Send Rate (TPS)	Max Latency (s)	Min Latency (s)	Avg Latency (s)	Throughput (TPS)
get-data-offer- evaluate-2000	411	0	5.9	20.33	0.29	15.32	5.9

Resource utilization for get-data-offer-evaluate-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- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		dev-peer0.org2.example.com-basic_1.0- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		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- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		dev-peer0.org2.example.com-basic_1.0- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		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- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		dev-peer0.org2.example.com-basic_1.0- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		orderer.example.com
		peer0.org1.example.com
		peer0.org2.example.com

Hyperledger Caliper Report



Basic information

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Summary,
get-data-offer-evaluate
get-data-offer-evaluate-100
get-data-offer-evaluate-2000
get-data-offer-evaluate-4000
get-data-offer-evaluate-8000
get-data-offer-evaluate-16000
get-data-offer-evaluate-32000
get-data-offer-evaluate-32000
get-data-offer-evaluate-64000

System under test

Details

	Typericager camper report							
Disc Read (MB)	sum(rate(container_fs_reads_bytes_total{name=~".+"} [1m])) by (name)	ca_orderer						
		couchdb0						
		couchdb1						
		dev-peer0.org1.example.com-basic_1.0-637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576						
		dev-peer0.org2.example.com-basic_1.0- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576						
		orderer.example.com						
		peer0.org1.example.com						
		peer0.org2.example.com						

Benchmark round: get-data-offer-evaluate-4000

Test an evaluateTransaction() Gateway method against the NodeJS `basic` Smart Contract method named `GetAlldata-offer`. This method retrieves all data-offer schedules from the ledger.

txDuration: 60
rateControl:
 type: fixed-load
 opts:
 transactionLoad: 20

Performance metrics for get-data-offer-evaluate-4000

Name	Succ	Fail	Send Rate (TPS)	Max Latency (s)	Min Latency (s)	Avg Latency (s)	Throughput (TPS)
get-data-offer- evaluate-4000	424	0	6.4	22.36	0.18	16.88	6.1

Resource utilization for get-data-offer-evaluate-4000

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- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		dev-peer0.org2.example.com-basic_1.0- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		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- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		dev-peer0.org2.example.com-basic_1.0- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		orderer.example.com
		peer0.org1.example.com
		peer0.org2.example.com
Disc	sum(rate(container_fs_writes_bytes_total{name=~".+"}	ca_orderer



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Details

Benchmark results

Summary,
get-data-offer-evaluate
get-data-offer-evaluate-100
get-data-offer-evaluate-2000
get-data-offer-evaluate-2000
get-data-offer-evaluate-4000
get-data-offer-evaluate-8000
get-data-offer-evaluate-16000
get-data-offer-evaluate-32000
get-data-offer-evaluate-32000
get-data-offer-evaluate-64000

System under test

Details

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Write (MB)	[1m])) by (name)	
	-	couchdb0
		couchdb1
		dev-peer0.org1.example.com-basic_1.0-637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		dev-peer0.org2.example.com-basic_1.0-637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		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_1.0-637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		dev-peer0.org2.example.com-basic_1.0-637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		orderer.example.com
		peer0.org1.example.com
		peer0.org2.example.com
	-	

Benchmark round: get-data-offer-evaluate-8000

Test an evaluateTransaction() Gateway method against the NodeJS `basic` Smart Contract method named `GetAlldata-offer`. This method retrieves all data-offer schedules from the ledger.

txDuration: 60
rateControl:
 type: fixed-load
 opts:
 transactionLoad: 20

Performance metrics for get-data-offer-evaluate-8000

Name	Succ	Fail	Send Rate (TPS)	Max Latency (s)	Min Latency (s)	Avg Latency (s)	Throughput (TPS)
get-data-offer- evaluate-8000	423	0	6.9	21.54	1.12	16.23	6.1

Resource utilization for get-data-offer-evaluate-8000

Metric	Prometheus Query	Name
Avg Memory (MB)	sum(container_memory_rss{name=~".+"}) by (name)	ca_orderer
		couchdb0
		couchdb1
		dev-peer0.org1.example.com-basic_1.0-637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		dev-peer0.org2.example.com-basic_1.0-637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		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



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Benchmark Rounds: 9

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Benchmark results

Summary,
get-data-offer-evaluate
get-data-offer-evaluate-100
get-data-offer-evaluate-2000
get-data-offer-evaluate-2000
get-data-offer-evaluate-4000
get-data-offer-evaluate-8000
get-data-offer-evaluate-16000
get-data-offer-evaluate-32000
get-data-offer-evaluate-32000
get-data-offer-evaluate-64000

System under test

Details

	Hyperledger Cali	per Report
		couchdb0
		couchdb1
		dev-peer0.org1.example.com-basic_1.0-637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		dev-peer0.org2.example.com-basic_1.0-637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		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_1.0-637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		dev-peer0.org2.example.com-basic_1.0-637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		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_1.0-637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		dev-peer0.org2.example.com-basic_1.0-637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		orderer.example.com
		peer0.org1.example.com
		peer0.org2.example.com

Benchmark round: get-data-offer-evaluate-16000

Test an evaluateTransaction() Gateway method against the NodeJS `basic` Smart Contract method named `GetAlldata-offer`. This method retrieves all data-offer schedules from the ledger.

txDuration: 60 rateControl: type: fixed-load opts: transactionLoad: 20

Performance metrics for get-data-offer-evaluate-16000

Name	Succ	Fail	Send Rate (TPS)	Max Latency (s)	Min Latency (s)	Avg Latency (s)	Throughput (TPS)
get-data-offer- evaluate-16000	418	0	6.5	21.35	0.27	16.08	6.0

Resource utilization for get-data-offer-evaluate-16000

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



DLT: fabric

Name: get-data-offers

Description: This is a duration based benchmark targeting a Hyperledger Fabric network using the 'basic' NodeJS chaincode contract that is interacted with via a Fabric-SDK-Node Gateway. Each test round invokes the 'GetAllOffer()' API method.

Benchmark Rounds: 9

Details

Benchmark results

Summary,
get-data-offer-evaluate
get-data-offer-evaluate-100
get-data-offer-evaluate-2000
get-data-offer-evaluate-2000
get-data-offer-evaluate-4000
get-data-offer-evaluate-8000
get-data-offer-evaluate-16000
get-data-offer-evaluate-32000
get-data-offer-evaluate-64000

System under test

Details

	Hyperledger Cali	рег керогт
		couchdb0
		couchdb1
		dev-peer0.org1.example.com-basic_1.0-637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		dev-peer0.org2.example.com-basic_1.0- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		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- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		dev-peer0.org2.example.com-basic_1.0- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		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_1.0-637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		dev-peer0.org2.example.com-basic_1.0-637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		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- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		dev-peer0.org2.example.com-basic_1.0-637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		orderer.example.com
		peer0.org1.example.com
		peer0.org2.example.com

Benchmark round: get-data-offer-evaluate-32000

 $Test\ an\ evaluate Transaction ()\ Gateway\ method\ against\ the\ NodeJS\ `basic`\ Smart\ Contract\ method\ named\ `GetAlldata-offer`.\ This\ method\ retrieves\ all\ data-offer\ schedules\ from\ the\ ledger.$

txDuration: 60
rateControl:
 type: fixed-load
 opts:
 transactionLoad: 20

Performance metrics for get-data-offer-evaluate-32000



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Basic	into	rmation

DLT: fabric

Name: get-data-offers

Description: This is a duration based benchmark targeting a Hyperledger Fabric network using the 'basic' NodeJS chaincode contract that is interacted with via a Fabric-SDK-Node Gateway. Each test round invokes the 'GetAllOffer()' API method.

Benchmark Rounds: 9

Details

Benchmark results

Summary,
get-data-offer-evaluate
get-data-offer-evaluate-100
get-data-offer-evaluate-2000
get-data-offer-evaluate-2000
get-data-offer-evaluate-4000
get-data-offer-evaluate-8000
get-data-offer-evaluate-16000
get-data-offer-evaluate-32000
get-data-offer-evaluate-64000

System under test

Details

		, ,	•				
Succ	Fail	Send Rate (TPS)	Max Latency (s)	Min Latency (s)	Avg Latency (s)	Throughput (TPS)	

0.21

17.90

5.5

23.68

Resource utilization for get-data-offer-evaluate-32000

429

Resource monitor: prometheus

Name

get-data-offer-

evaluate-32000

Metric	Prometheus Query	Name	
Avg Memory (MB)	sum(container_memory_rss{name=~".+"}) by (name)	ca_orderer	
		couchdb0	
		couchdb1	
		dev-peer0.org1.example.com-basic_1.0-637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576	
		dev-peer0.org2.example.com-basic_1.0-637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576	
		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_1.0-637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576	
		dev-peer0.org2.example.com-basic_1.0-637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576	
		orderer.example.com	
		peer0.org1.example.com	
		peer0.org2.example.com	
Disc Write (MB)	$sum(rate(container_fs_writes_bytes_total\{name=\sim".+"\}\\ [1m]))\ by\ (name)$	ca_orderer	
		couchdb0	
		couchdb1	
		dev-peer0.org1.example.com-basic_1.0- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576	
		dev-peer0.org2.example.com-basic_1.0-637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576	
		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- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576	
		dev-peer0.org2.example.com-basic_1.0-637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576	
		orderer.example.com	
		peer0.org1.example.com	
		peer0.org2.example.com	



DLT: fabric

Name: get-data-offers

Description: This is a duration based benchmark targeting a Hyperledger Fabric network using the 'basic' NodeJS chaincode contract that is interacted with via a Fabric-SDK-Node Gateway. Each test round invokes the 'GetAllOffer()' API method.

Benchmark Rounds: 9

Details

Benchmark results

Summary

get-data-offer-evaluate
get-data-offer-evaluate-100
get-data-offer-evaluate-2000
get-data-offer-evaluate-2000
get-data-offer-evaluate-4000
get-data-offer-evaluate-8000
get-data-offer-evaluate-16000
get-data-offer-evaluate-32000
get-data-offer-evaluate-32000
get-data-offer-evaluate-64000

System under test

Details

Benchmark round: get-data-offer-evaluate-64000

Test an evaluateTransaction() Gateway method against the NodeJS `basic` Smart Contract method named `GetAlldata-offer`. This method retrieves all data-offer schedules from the ledger.

txDuration: 60 rateControl: type: fixed-load opts: transactionLoad: 20

Performance metrics for get-data-offer-evaluate-64000

Name	Succ	Fail	Send Rate (TPS)	Max Latency (s)	Min Latency (s)	Avg Latency (s)	Throughput (TPS)
get-data-offer- evaluate-64000	421	0	7.1	22.06	0.35	16.86	6.1

Resource utilization for get-data-offer-evaluate-64000

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- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		dev-peer0.org2.example.com-basic_1.0- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		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- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		dev-peer0.org2.example.com-basic_1.0- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
		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- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726570
		dev-peer0.org2.example.com-basic_1.0- 637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726570
		orderer.example.com
		peer0.org1.example.com
		peer0.org2.example.com
Disc Read	sum(rate(container_fs_reads_bytes_total{name=~".+"} [1m])) by (name)	ca_orderer



DLT: fabric

Name: get-data-offers

Description: This is a duration based benchmark targeting a Hyperledger Fabric network using the 'basic' NodeJS chaincode contract that is interacted with via a Fabric-SDK-Node Gateway. Each test round invokes the 'GetAllOffer()' API method.

Benchmark Rounds: 9

Details

Benchmark results

<u>Summary</u>

get-data-offer-evaluate

get-data-offer-evaluate-100

get-data-offer-evaluate-1000

get-data-offer-evaluate-2000 get-data-offer-evaluate-4000

get-data-offer-evaluate-8000

get-data-offer-evaluate-16000

get-data-offer-evaluate-32000

get-data-offer-evaluate-64000

System under test

Details

(MB)	
	couchdb0
	couchdb1
	dev-peer0.org1.example.com-basic_1.0-637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
	dev-peer0.org2.example.com-basic_1.0-637b908e08b257332d955d5b7eadeac170c68a9499b6070bb44fcd2688726576
	orderer.example.com
	peer0.org1.example.com
	peer0.org2.example.com

Test Environment

benchmark config

```
name: get-data-offers
description: >
  This is a duration based benchmark targeting a Hyperledger Fabric network using the `basic` NodeJS chaincode contract that is interacted with via a Fabric-SDK-Node Gateway. Each test round invokes the 'GetAllOffer()' API
workers:
number: 100
rounds:
    - label: get-data-offer-evaluate
     description: >
    Test an evaluateTransaction() Gateway method against the NodeJS `basic`
    Smart Contract method named `GetAlldata-offer`. This method retrieves all
    data-offer schedules from the ledger.
chaincodeID: basic

**Purpraties** 60
      txDuration: 60
      rateControl:
         type: fixed-load
         opts:
     transactionLoad: 20 workload:
         module: benchmarks/datamanagement/workloads/get-data-offer.js
         arguments:
            chaincodeID: basic
     label: get-data-offer-evaluate-100 description: >
         Test an evaluateTransaction() Gateway method against the NodeJS `basic`
Smart Contract method named `GetAlldata-offer`. This method retrieves all
      data-offer schedules from the ledger.
chaincodeID: basic
      txDuration: 60
      rateControl:
         type: fixed-load
         opts:
            transactionLoad: 20
      workload:
         module: benchmarks/datamanagement/workloads/get-data-offer.js
         arguments:
            chaincodeID: basic
            byteSize: 100 consensus: false
   - label: get-data-offer-evaluate-1000
      description: >
         Test an evaluateTransaction() Gateway method against the NodeJS `basic`
Smart Contract method named `GetAlldata-offer`. This method retrieves all
      data-offer schedules from the ledger.
chaincodeID: basic
      txDuration: 60
      rateControl:
         type: fixed-load
         opts:
            transactionLoad: 20
         module: benchmarks/datamanagement/workloads/get-data-offer.js
         arguments:
            chaincodeTD: basic
     byteSize: 1000
consensus: false
label: get-data-offer-evaluate-2000
     Test an evaluateTransaction() Gateway method against the NodeJS `basic` Smart Contract method named `GetAlldata-offer`. This method retrieves all data-offer schedules from the ledger. chaincodeID: basic typuration: 60
      txDuration: 60
      rateControl:
         type: fixed-load
         opts:
            transactionLoad: 20
      workload:
module: benchmarks/datamanagement/workloads/get-data-offer.js
         arguments:
            chaincodeID: basic
            byteSize: 2000
             consensus: false
     label: get-data-offer-evaluate-4000
      description: >
         Test an evaluateTransaction() Gateway method against the NodeJS `basic` Smart Contract method named `GetAlldata-offer`. This method retrieves all
```



DLT: fabric

Name: get-data-offers

Description: This is a duration based benchmark targeting a Hyperledger Fabric network using the 'basic' NodeJS chaincode contract that is interacted with via a Fabric-SDK-Node Gateway. Each test round invokes the 'GetAllOffer()' API method.

Benchmark Rounds: 9

Details

Benchmark results

Summary

get-data-offer-evaluate
get-data-offer-evaluate-100
get-data-offer-evaluate-2000
get-data-offer-evaluate-2000
get-data-offer-evaluate-4000
get-data-offer-evaluate-8000
get-data-offer-evaluate-16000

get-data-offer-evaluate-32000

get-data-offer-evaluate-64000

System under test

Details

```
data-offer schedules from the ledger. chaincodeID: basic
  txDuration: 60
rateControl:
     type: fixed-load
     opts:
  transactionLoad: 20 workload:
     module: benchmarks/datamanagement/workloads/get-data-offer.js
     arguments:
   chaincodeID: basic
        byteSize: 4000
consensus: false
- label: get-data-offer-evaluate-8000
  description: >
  Test an evaluateTransaction() Gateway method against the NodeJS `basic`
Smart Contract method named `GetAlldata-offer`. This method retrieves all
data-offer schedules from the ledger.
chaincodeID: basic
   txDuration: 60
   rateControl:
     type: fixed-load
     opts:
transactionLoad: 20
  workload:
     module: benchmarks/datamanagement/workloads/get-data-offer.js
     arguments:
        chaincodeID: basic
        byteSize: 8000 consensus: false
  label: get-data-offer-evaluate-16000
 description: >
Test an evaluateTransaction() Gateway method against the NodeJS `basic`
Smart Contract method named `GetAlldata-offer`. This method retrieves all
data-offer schedules from the ledger.
chaincodeID: basic

**PowerField (6)
   txDuration: 60
   rateControl:
     type: fixed-load opts:
        transactionLoad: 20
  workload:
     \begin{tabular}{ll} module: benchmarks/datamanagement/workloads/get-data-offer.js \\ arguments: \end{tabular}
         chaincodeID: basic
 byteSize: 16000
consensus: false
label: get-data-offer-evaluate-32000
  description: >
     Test an evaluateTransaction() Gateway method against the NodeJS `basic`
Smart Contract method named `GetAlldata-offer`. This method retrieves all
  data-offer schedules from the ledger. chaincodeID: basic
  txDuration: 60 rateControl:
     type: fixed-load
     opts:
  transactionLoad: 20 workload:
     module: benchmarks/datamanagement/workloads/get-data-offer.js
     arguments:
   chaincodeID: basic
        byteSize: 23000 consensus: false
 label: get-data-offer-evaluate-64000
  description: >
  Test an evaluateTransaction() Gateway method against the NodeJS `basic` Smart Contract method named `GetAlldata-offer`. This method retrieves all data-offer schedules from the ledger. chaincodeID: basic
   txDuration: 60
  rateControl:
  type: fixed-load
     opts:
transactionLoad: 20
  workload:
     module: benchmarks/datamanagement/workloads/get-data-offer.js
     arguments:
         chaincodeID: basic
         byteSize: 64000
        consensus: false
```

SUT

not provided