

Integration

- Instructions: <https://apps.sematest.com/ui/howto/Kafka/overview>

Metrics

Metric				
Name	Key	Agg	Type	Description
resends	kafka.producer.metrics.resends	sum	long	
failed	kafka.producer.metrics.sends.failed	sum	long	
serialization-errors	kafka.producer.metrics.serialization-errors	sum	long	
zookeeper-commits	kafka.consumer.metrics.commits.zookeeper	sum	long	
rebalance-count	kafka.consumer.metrics.rebalances	sum	long	
kafka_consumer_commits	kafka.consumer.metrics.commits.kafka	sum	long	
request-queue-time	kafka.broker.metrics.requests.time.queue	avg	double	
requests	kafka.broker.metrics.requests	sum	long	
response-send-time	kafka.broker.metrics.responses.time.send	avg	double	
response-queue-time	kafka.broker.metrics.responses.time.queue	avg	double	
local-time	kafka.broker.metrics.requests.time.local	avg	double	
remote-time	kafka.broker.metrics.requests.time.remote	avg	double	

Metric				
Name	Key	Agg	Type	Description
buffer pool wait ratio	kafka.producer.buffer.pool.wait	avg	Double	The fraction of time an appender waits for space allocation.
buffer available bytes	kafka.producer.buffer.available	avg	Double	The total amount of buffer memory that is not being used (either unallocated or in the free list).

Metric				
Name	Key	Agg	Type	Description
batch size max	kafka.producer.batch.size.max	Max	Double	The maximum number of bytes sent per partition per request.
buffer total bytes	kafka.producer.buffer.total.bytes	Agg	Double	The maximum amount of buffer memory the client can use (whether or not it is currently used).

Metric				
Name	Key	Agg	Type	Description
batch size	kafka.producer.batch.size	avg	Double	File size av- er- age num- ber of bytes sent per par- ti- tion per- request.
compression rate	kafka.producer.compression.rate	avg	Double	File compression.rate av- er- age com- pres- sion rate of record batches.
size	kafka.broker.log.size	avg	Long	Log size
offset in-creas-ing	kafka.broker.log.offset.increasing	sum	Long	Log offset.end
segments	kafka.broker.log.segments	avg	Long	Log segments
under repli-cated	kafka.broker.partition.underreplicated	avg	Long	Partition.underreplicated

Metric				
Name	Key	Agg	Type	Description
error rate	kafka.producer.records.error.rate	Avg	Double	The average number of record sends that resulted in errors
send rate	kafka.producer.records.send.rate	Avg	Double	The average number of records sent per second.
byte rate	kafka.producer.bytes.rate	Avg	Double	The average rate of bytes.

Metric				
Name	Key	Agg	Type	Description
compression.rate	kafka.producer	avg	Double	The compression rate of records.
retry rate	kafka.producer	avg	Double	The records.retry.rate average per-second number of re-tried record sends
sync rate	kafka.controller	avg	Double	The number of group syncs per second

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Metric				
Name	Key	Agg	Type	Description
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heartbeat re- sponse time max	kafka.consumer. group	Max	Double	Time taken to re- ceive a re- sponse to a heart- beat re- quest
sync time avg	kafka.consumer. group	Avg	Double	Time taken for a group sync
join time max	kafka.consumer. group	Max	Double	Time taken for a group re- join

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Metric				
Name	Key	Agg	Type	Description
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heartbeat rate	kafka.consumer.heartbeat.rate	avg	Double	The number of heartbeat per second
join rate	kafka.consumer.join.rate	avg	Double	The number of group joins per second
sync time max	kafka.consumer.sync.time.max	max	Double	The max time taken for a group sync

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Metric				
Name	Key	Agg	Type	Description
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last heart-beat	kafka.controller.heartbeat	avg	Double	The number of seconds since the last controller heartbeat
assigned partitions	kafka.controller	avg	Double	The number of partitions currently assigned to consumer
join time avg	kafka.controller	avg	Double	The average time taken for a group re-join

Metric				
Name	Key	Agg	Type	Description
io wait time	kafka.producer	avg	Double	The time, in ns, that the thread spent waiting for a socket ready for reads or writes.
connection creation rate	kafka.producer	avg	Double	The number of new connections created per second in the window.

Metric				
Name	Key	Agg	Type	Description
connections.close.rate	kafka.producer.connections.close.rate	avg	Double	The closed per second in the window.
network.io.rate	kafka.producer.network.io.rate	avg	Double	The average number of network operations (reads or writes) on all connections per second.

Metric				
Name	Key	Agg	Type	Description
io-ratio	kafka.p	avg	Double	The fraction of time the I/O thread spent doing I/O
connections-count	kafka.p	avg	Double	The current number of active connections.
io-wait-ratio	kafka.p	avg	Double	The fraction of time the I/O thread spent waiting.

Metric				
Name	Key	Agg	Type	Description
io_time	kafka.producer	Average	Double	The average length of time for I/O per select call.
records_lag_max	kafka.consumer	Maximum	Double	The maximum lag in terms of number of records for any partition
time	kafka.producer	Sum	Double	requests.time
requests	kafka.producer	Sum	Long	requests
size	kafka.producer	Sum	Double	requests.size

Metric				
Name	Key	Agg	Type	Description
connections.close.rate	kafka.connector.class	avg	double	The rate of connections closed per second in the window.
io.wait.ratio	kafka.connector.class	avg	double	The fraction of time the I/O thread spent waiting.

Metric				
Name	Key	Agg	Type	Description
networkkafka.io-rate	argum	Double	The	av- er- age num- ber of net- work op- era- tions (reads or writes) on all con- nec- tions per sec- ond.

Metric				
Name	Key	Agg	Type	Description
io wait time	kafka.consumers	avg	Double	The average length of time the I/O thread spent waiting for a socket ready for reads or writes.
connections count	kafka.config	sum	Double	The current number of active connections.

Metric				
Name	Key	Agg	Type	Description
connections.create.rate	kafka.connections.create.rate	avg	Double	The number of new connections established per second in the window.
io_ratio	kafka.io_ratio	avg	Double	The fraction of time the I/O thread spent doing I/O
io_time	kafka.io_time	avg	Double	The average length of time for I/O per select call.

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Metric				
Name	Key	Agg	Type	Description
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record send rate	kafka.producer.send.rate	avg	Double	The average number of records sent per second.
waiting threads	kafka.producer.threads.waiting	avg	Double	The number of user threads blocked waiting for buffer memory to enqueue their records

Metric				
Name	Key	Agg	Type	Description
records per re- quest	kafka.producer	avg	Double	The records av- er- age num- ber of records per re- quest.
record queue time max	kafka.producer	max	Double	The queued.time.max max- i- mum time record batches spent in the record ac- cu- mu- la- tor.

Metric				
Name	Key	Agg	Type	Description
error rate	kafka.producer.error.rate	avg	Double	The average per-second number of record sends that resulted in errors
record size max	kafka.producer.record.size.max	max	Double	The maximum record size
record retry rate	kafka.producer.retry.rate	avg	Double	The average per-second number of re-tried record sends

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Metric				
Name	Key	Agg	Type	Description
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select rate	kafka.producer.select	avg	Double	The number of times the I/O layer checked for new I/O to perform per second
record size	kafka.producer.record	avg	Double	The average record size
record time	kafka.producer.record	avg	Double	The average time record batches spent in the record accumulator.

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Metric				
Name	Key	Agg	Type	Description
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requests.in.flight	kafka.producer	avg	Double	The number of in-flight requests awaiting a response.
responses.bytes	kafka.consumer	sum	Double	responses.bytes
responses	kafka.consumer	sum	Long	responses
fetcher.bytes	kafka.consumer	sum	Long	requests.bytes
requests.time	kafka.consumer	avg	Double	requests.time
requests	kafka.consumer	sum	Long	requests
throttle.time	kafka.consumer	avg	Double	requests.throttle.time

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Metric				
Name	Key	Agg	Type	Description
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broker kafka. broker.lag	earliest offset	min	Number	Number of messages deleted by Kafka retention job
lag	kafka.consumer.lag	avg	Number	
all ex-pires	kafka.broker.expire	sum	Number	Number of expired delayed producer requests
followe ex-pires	kafka.broker.expire	sum	Number	Number of expired delayed follower fetch requests
response queue	kafka.broker.queue	avg	Response Size	Response size

Metric				
Name	Key	Agg	Type	Description
consumers ex- pires	kafka.broker.expired	Sum	Integer	Number of expired delayed consumer fetch requests
request queue	kafka.broker.request	Avg	Double	Request size Queue Size
records con- sumed rate	kafka.consumer	Avg	Double	The rate average number of records consumed per second
fetch rate	kafka.consumer	Avg	Double	The number of fetch requests per second

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Metric				
Name	Key	Agg	Type	Description
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fetch size avg	kafka.consumer.fetch.size	Avg	Double	The average number of bytes fetched per request
bytes consumed rate	kafka.consumer.bytes.consumed.rate	Avg	Double	The average number of bytes consumed per second
fetch latency	kafka.consumer.fetch.latency	Avg	Double	The average time taken for a fetch request

Metric				
Name	Key	Agg	Type	Description
records-per-request	kafka.consumer.requests	avg	Double	The records.avg of av-er-age num-ber of records per re-quest
throttle-time-max	kafka.consumer.throttle	max	Double	The time.max max throt-tle time in ms
partitions	kafka.broker.partitions	avg	Integer	Number of par-ti-tions (lead or fol-lower repli-cas) on bro-ker

Metric				
Name	Key	Agg	Type	Description
under-replicated-partitions	kafka.broker.partition.number	sum	Integer	Number of partitions with unavailable replicas
offline-partitions	kafka.broker.partition.number	sum	Integer	Number of unavailable partitions
leader-partitions	kafka.broker.partition.number	sum	Integer	Number of leader replicas on broker
bytes-produced	kafka.controller.topic.bytes	sum	Long	
dropped-messages	kafka.controller.topic.messages.dropped	sum	Long	
messages	kafka.controller.topic.messages	sum	Long	

Metric				
Name	Key	Agg	Type	Description
log flushes time	kafka.lsr.log.flush.time	Sum	Double	Time of flush-ing Kafka logs to disk
isr shrinks	kafka.lsr.isr.shrink	Sum	Long	Number of times ISR for a par-ti-tion shrank
isr ex-pands	kafka.lsr.isr.expand	Sum	Long	Number of times ISR for a par-ti-tion ex-panded
log flushes	kafka.lsr.log.flush	Sum	Long	Rate of flush-ing Kafka logs to disk

Metric				
Name	Key	Agg	Type	Description
fetch-de-layed-re-quests	kafka.broker.purgatory.requests.fetch.delayed	Long	Number	Number of re-quests de-layed in the fetch pur-ga-tory
producer-de-layed-re-quests size	kafka.broker.purgatory.requests.producer.requests.fetch.size	Long	Number	wait-ing in the pro-ducer pur-ga-tory. This should be non-zero when acks = -1 is used in pro-duc-ers

Metric				
Name	Key	Agg	Type	Description
producer.request.fetch.delayed.requests	kafka.broker.id	avg	long	Number of requests delayed in the producer purgatory
fetch.delayed.requests.size	kafka.broker.id	avg	long	Requests waiting in the fetch purgatory. This depends on value of fetch.wait.max.ms in the consumer
preferred.replica imbalance count	kafka.broker.id	avg	long	imbalance

Metric				
Name	Key	Agg	Type	Description
replicakafka.broker.lag.max	max	Long		lag
replicakafka.broker.lag.min	min	Long		fetch
responsekafka.producer.responses.rate	rate	Double		av- er- age num- ber of re- sponses re- ceived per sec- ond.
requestkafka.producer.size.max	max	Double		max- i- mum size of any re- quest sent in the win- dow.
incomingkafka.producer.bytes.rate	rate	Double		Bytes/second read off socket

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Metric				
Name	Key	Agg	Type	Description
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requestkafka.producer.requests.latency.max		Max	Double	The maximum latency of requests.
la-tency				max-i-mum
max				re-quest
				la-tency
requestkafka.producer.requests.latency		Avg	Double	The average latency of requests.
la-tency				av-er-age
				re-quest
				la-tency
requestkafka.producer.requests.rate		Avg	Double	The average rate of requests.
rate				av-er-age
				num-ber
				of
				re-quests
				sent
				per
				sec-ond.

Metric				
Name	Key	Agg	Type	Description
request size	kafka.producer.requests.size	Avg	Double	The average size of all requests in the window..
outgoing byte rate	kafka.producer.out.bytes.rate	Avg	Double	The average number of outgoing bytes sent per second to servers.
bytes out	kafka.broker.topic.out.bytes	Sum	Long	
messages in	kafka.broker.topic.in.messages	Sum	Long	
failed fetch requests	kafka.broker.topic.requests.fetch.failed	Sum	Long	

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Metric				
Name	Key	Agg	Type	Description
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failed_produce_requests	kafka.broker.topic	Sum	Long	requests.produce.failed
bytes_in	kafka.broker.topic	Sum	Long	in.bytes
bytes_rejected	kafka.broker.topic	Sum	Long	in.bytes.rejected
max_dirty_percent	kafka.broker	Max	Long	cleaner.dirty.percentage
max_buffer_utilization	kafka.broker	Max	Long	cleaner.recopy.buffer.utilization
recopy_percent	kafka.broker	Max	Long	cleaner.recopy.percentage
max_clean_time	kafka.broker	Max	Long	cleaner.clean.time
active_controllers	kafka.controller	Avg	Double	active controller
queue_size	kafka.controller	Avg	Long	topic.queue
owned_partitions	kafka.controller	Avg	Long	partitions.owned
messages	kafka.controller	Sum	Long	topic.messages
bytes	kafka.controller	Sum	Long	topic.bytes
election_time	kafka.controller	Sum	Double	elections.time

Metric				
Name	Key	Agg	Type	Description
elections	kafka broker	Sum	Long	elections
unclean elections	kafka broker	Sum	Long	elections.unclean elections
request latency max	kafka controller	Max	Double	request.latency.max
request latency max	kafka controller	Max	Double	request.latency.max
outgoing byte rate	kafka controller	Avg	Double	outgoing bytes sent per second to servers.
request latency	kafka controller	Avg	Double	request.latency
request latency	kafka controller	Avg	Double	request.latency

Metric				
Name	Key	Agg	Type	Description
request.size.max	kafka.consumer	Max	Double	The request.size.max of any request sent in the window.
incoming.byte.rate	kafka.consumer	Avg	Double	Bytes/second read off socket
request.rate	kafka.consumer	Avg	Double	The average number of requests sent per second.

Metric				
Name	Key	Agg	Type	Description
response rate	kafka.consumer.response.rate	Avg	Double	The average number of responses received per second.
request size	kafka.consumer.request.size	Avg	Double	The average size of all requests in the window..

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Metric Name	Key	Agg	Type	Description
async events	kafka.producer.events.async	Sum	Long	
avg. request latency	kafka.producer.requests.latency	Avg	Double	
async dropped events	kafka.producer.events.async.dropped	Sum	Long	
max. request latency	kafka.producer.requests.latency.max	Avg	Double	
requests	kafka.producer.requests.rate	Avg	Double	
requests	kafka.producer.requests	Sum	Long	
flushes	kafka.broker.flushes.rate	Avg	Double	

Metric Name	Key	Agg	Type	Description
total fetch requests	kafka.broker.requests.fetch.time	Sum	Long	
failed produce requests	kafka.broker.requests.produce.failed	Sum	Long	
bytes written	kafka.broker.out.bytes.rate	Avg	Double	
avg. produce request	kafka.broker.requests.produce.time.avg	Avg	Double	
max. produce request	kafka.broker.requests.produce.time.max	Avg	Double	
max. fetch request	kafka.broker.requests.fetch.time.max	Avg	Double	
total bytes writtern	kafka.broker.out.bytes	Sum	Long	
flushes	kafka.broker.flushes	Sum	Long	
produce requests	kafka.broker.requests.produce.rate	Avg	Double	
bytes in	kafka.broker.in.bytes.sum	Sum	Long	
failed fetch requests	kafka.broker.requests.fetch.failed	Sum	Long	
messages in	kafka.broker.in.messages	Sum	Long	
avg. flushes	kafka.broker.flushes.time.avg	Avg	Double	
produce requests	kafka.broker.requests.produce	Sum	Long	
max. flush	kafka.broker.flushes.time.max	Avg	Double	
total flush	kafka.broker.flushes.time.total	Sum	Long	
bytes read	kafka.broker.in.bytes.rate	Avg	Double	
fetch requests	kafka.broker.requests.fetch.rate	Avg	Double	
fetch requests	kafka.broker.requests.fetch	Sum	Long	
avg. fetch request	kafka.broker.requests.fetch.time.avg	Avg	Double	
total bytes read	kafka.broker.in.bytes	Sum	Long	
total produce requests	kafka.broker.requests.produce.time	Sum	Long	
bytes out	kafka.broker.out.bytes	Sum	Long	
messages appended	kafka.logs.messages	Sum	Long	
logs size	kafka.logs.size	Avg	Double	
segments	kafka.logs.segments	Sum	Long	
avg. requests latency	kafka.consumer.requests.fetch.latency	Avg	Double	
requests	kafka.consumer.requests.rate	Avg	Double	
bytes per topic	kafka.consumer.bytes.topic	Sum	Long	
throughput	kafka.consumer.throughput	Avg	Double	
messages per topic	kafka.consumer.messages.topic	Sum	Long	
max. requests latency	kafka.consumer.requests.fetch.latency.max	Avg	Double	
requests	kafka.consumer.requests.fetch	Sum	Long	
total flush time	kafka.broker.flushes.time	Sum	Long	
max. flush time	kafka.broker.flushes.time.max	Avg	Double	
flush rate	kafka.broker.flushes.rate	Avg	Double	
total flushes	kafka.broker.flushes	Sum	Long	
avg. flush time	kafka.broker.flushes.time.avg	Avg	Double	
messages in	kafka.broker.in.messages	Sum	Long	
bytes out	kafka.broker.out.bytes	Sum	Long	
bytes in	kafka.broker.in.bytes	Sum	Long	
lag	kafka.consumer.offset.lag	Avg	Long	
bytes	kafka.consumer.topic.bytes	Sum	Long	
consumed	kafka.consumer.offset.consumed	Sum	Long	

Metric Name	Key	Agg	Type	Description
produced	kafka.consumer.offset.produced	Sum	Long	
messages	kafka.consumer.topic.messages	Sum	Long	
avg. fetch latency	kafka.broker.requests.fetch.latency	Avg	Double	
produce rate	kafka.broker.requests.produce.rate	Avg	Double	
fetch rate	kafka.broker.requests.fetch.rate	Avg	Double	
produce requests	kafka.broker.requests.produce	Sum	Long	
total bytes read	kafka.broker.in.bytes	Sum	Long	
total fetch latency	kafka.broker.requests.fetch.latency.total	Sum	Long	
failed produce requests	kafka.broker.requests.produce.failed	Sum	Long	
bytes read rate	kafka.broker.in.bytes.rate	Avg	Double	
failed fetch requests	kafka.broker.requests.fetch.failed	Sum	Long	
total produce latency	kafka.broker.requests.produce.latency.total	Sum	Long	
avg. produce latency	kafka.broker.requests.produce.latency	Avg	Double	
max. produce latency	kafka.broker.requests.produce.latency.max	Avg	Double	
max. fetch latency	kafka.broker.requests.fetch.latency.max	Avg	Double	
total bytes written	kafka.broker.out.bytes	Sum	Long	
bytes written rate	kafka.broker.out.bytes.rate	Avg	Double	
fetch requests	kafka.broker.requests.fetch	Sum	Long	
bytes out	kafka.broker.topic.out.bytes	Sum	Long	
messages in	kafka.broker.topic.in.messages	Sum	Long	
bytes in	kafka.broker.topic.in.bytes	Sum	Long	
failed fetch requests	kafka.broker.topic.requests.fetch.failed	Sum	Long	
failed produce requests	kafka.broker.topic.requests.produce.failed	Sum	Long	