HBase Monitoring

How do I enable JMX in HBase

Please see HBase Metrics page for instructions.

Do I need to add a separate SPM Application for each HBase server/node I want to monitor

No, one Application is enough. Think of an SPM "Application" as a "HBase Cluster". Thus, to monitor N HBase servers that belong to the same cluster you would create just a single SPM Application and use its Token in SPM configuration file on all HBase servers that are a part of this cluster.

Why don't some HBase metrics graphs have any data

There could be 2 possible reasons:

1. Some metrics are for RegionServers (HBase slaves), some for HBase Master. Thus, if you select the Master node in the UI, graphs that contain Slave-specific metrics will be blank and vice-versa.
2. Different versions of HBase provide different metrics. Thus, if you have an older version of HBase, it may not be providing all metrics that SPM collects and graphs.

Which versions of HBase does SPM support

SPM has been tested with HBase 0.90, 0.92, 0.94, and 0.98, but will work for newer versions, including all CDH versions.

Integration

- Instructions: https://apps.sematext.com/ui/howto/HBase/overview

Metrics

Metric Name Key	Agg	Type	Description
total jvm.memory.total.max	Max	Double	Hadoop:service=HBase,name=JvmMetrics#MemMaxM

Metric Name	Key	Agg	Type	Description
info	jvm.log.info	Sum	Long	Hadoop:service=HBase,name=JvmMetrics#LogInfo
non heap used	jvm.nonheap.used	Avg	Double	Hadoop:service=HBase,name=JvmMetrics#MemNonHeap
error	jvm.log.error	Sum	Long	Hadoop:service=HBase,name=JvmMetrics#LogError
heap committed	jvm.heap.committed	Avg	Double	Hadoop:service=HBase,name=JvmMetrics#MemHeapCom
heap max	jvm.heap.max	Max	Double	Hadoop:service=HBase,name=JvmMetrics#MemHeapMax
blocked	jvm.threads.blocked	Avg	Long	Hadoop:service=HBase,name=JvmMetrics#ThreadsBlocke
terminated	jvm.threads.terminated	Avg	Long	Hadoop:service=HBase,name=JvmMetrics#ThreadsTermi
warn	jvm.log.warn	Sum	Long	Hadoop:service=HBase,name=JvmMetrics#LogWarn
timed waiting	jvm.threads.waiting.timed	Avg	Long	Hadoop:service=HBase,name=JvmMetrics#ThreadsTimed
heap used	jvm.heap.used	Avg	Double	Hadoop:service=HBase,name=JvmMetrics#MemHeapUsed
fatal	jvm.log.fatal	Sum	Long	Hadoop:service=HBase,name=JvmMetrics#LogFatal
non heap max	jvm.nonheap.max	Avg	Double	Hadoop:service=HBase,name=JvmMetrics#MemNonHeap
waiting	jvm.threads.waiting	Avg	Long	Hadoop:service=HBase,name=JvmMetrics#ThreadsWaiti
new	jvm.threads.new	Avg	Long	Hadoop:service=HBase,name=JvmMetrics#ThreadsNew

Metric Name	Key	Agg	Type	Description
non heap committed	jvm.nonheap.committed	Avg	Long	Hadoop:service=HBase,name=JvmMetrics#MemNonHeap
runnable	jvm.threads.runnable	Avg	Long	Hadoop:service=HBase,name=JvmMetrics#ThreadsRunna
ops	hbase.ugi.UgiMetrics.GetGroupsNumOps	Sum	Long	Hadoop:service=HBase,name=UgiMetrics#GetGroupsNum
failure time	hbase.ugi.UgiMetrics.LoginFailureAvgTime	Sum	Double	Hadoop:service=HBase,name=UgiMetrics#LoginFailureAv * LoginFailureNumOps
success time	hbase.ugi.UgiMetrics.LoginSuccessAvgTime	Sum	Double	Hadoop:service=HBase,name=UgiMetrics#LoginSuccessAv * LoginSuccessNumOps
success ops	hbase.ugi.UgiMetrics.LoginSuccessNumOps	Sum	Long	Hadoop:service=HBase,name=UgiMetrics#LoginSuccessNu
failure ops	hbase.ugi.UgiMetrics.LoginFailureNumOps	Sum	Long	Hadoop:service=HBase,name=UgiMetrics#LoginFailureNu
time	hbase.ugi.UgiMetrics.GetGroupsAvgTime	Sum	Double	Hadoop:service=HBase,name=UgiMetrics#v * GetGroupsNumOps

Metric Name	Key	Agg	Type	Description
syncs	hbase.regionserver.wal.syncs	Sum	Long	Count of syncs the HLog to HDFS.
Hadoop:service=HBase,name=RegionServer,sub=W				
append time	hbase.regionserver.wal.appendTime	Sum	Double	The time an append to the log took.
Hadoop:service=HBase,name=RegionServer,sub=WA				
*				Append-Time_mean
append max time	hbase.regionserver.wal.appendMax	Max	Long	Hadoop:service=HBase,name=RegionServer,sub=WAL#A
sync time	hbase.regionserver.wal.syncTime	Sum	Double	The time it took to sync the HLog to HDFS.
Hadoop:service=HBase,name=RegionServer,sub=W				
*				Sync-Time_mean

Metric Name	Key	Agg	Type	Description
appends	hbase.rs.wal.appends	Sum	Long	Count of appends to the log.
appendSize	hbase.rs.wal.appendSize	Sum	DoubleHadoop:service=HBase,name=RegionServer,sub=WAL
appendSize	hbase.rs.wal.appendSize	Sum	Double	Size (in bytes) of the data appended to the HLog.
appendSize_mean	hbase.rs.wal.appendSize	Mean	Double	Hadoop:service=HBase,name=RegionServer,sub=WAL#A
appendMax	hbase.rs.wal.appendSize	Max	Double	Hadoop:service=HBase,name=RegionServer,sub=WAL#A
appendMin	hbase.rs.wal.appendSize	Min	Double	Hadoop:service=HBase,name=RegionServer,sub=WAL#A
appendTime	hbase.rs.wal.appendTime	Sum	Long	Count of appends to the log.

Metric Name	Key	Agg	Type	Description
sync max time	hbase.regionserver.wal.sync_max	Max	Long	Hadoop:service=HBase,name=RegionServer,sub=WAL#Sy
appends	hbase.regionserver.wal.appends	Sum	Long	Count of appends to the log.Hadoop:service=HBase,name=RegionServer,sub=WAL
append min size	hbase.regionserver.wal.append_size_min	Min	Long	Hadoop:service=HBase,name=RegionServer,sub=WAL#A
sync min time	hbase.regionserver.wal.sync_min	Min	Long	Hadoop:service=HBase,name=RegionServer,sub=WAL#Sy
slow appends	hbase.regionserver.wal.slow_appends	Sum	Long	Number of appends that were slow.Hadoop:service=HBase,name=RegionServer,sub=WA

Metric Name	Key	Agg	Type	Description
compactionQueueLength	hbase.regionserver.compaction.queue	Avg	Instantaneous	Current depth of the compaction request queue. If increasing, we are falling behind with storefile compaction.Hadoop:service=HBase,name=RegionServer,sub=S
compactedCellsSize	hbase.regionserver.compaction.cells.size	Sum	Incremental	Total amount of data processed during minor compactions, in bytes.Hadoop:service=HBase,name=RegionServer,sub=Ser

Metric Name	Key	Agg	Type	Description
updates blocked time	hbase.regionserver.updatesBlockedTime	Sum	Long	Number of MS updates have been blocked so that the memstore can be flushed.Hadoop:service=HBase,name=RegionServer,sub=S
major compacted cells	hbase.regionserver.majorCompactionCells	Sum	Long	The number of cells processed during major compactions.Hadoop:service=HBase,name=RegionServer,sub=

Metric Name	Key	Agg	Type	Description
flush queue	hbase.regionserver.flushQueueLength	Avg	Location	Length of the queue for region flushes.If increasing, we are falling behind with clearing memstores out to HDFS.Hadoop:service=HBase,name=RegionServer,sub=Se
compacted cells	hbase.regionserver.compactedCells	Sum	Location	The number of cells processed during minor compactions.Hadoop:service=HBase,name=RegionServer,sub=

Metric Name	Key	Agg	Type	Description
flushed cells	hbase.regionserver.flushedcells	Sum	Long	The number of cells flushed to disk.Hadoop:service=HBase,name=RegionServer,sub=Serv
flushed cells size	hbase.regionserver.flushedcells.size	Sum	Long	The total amount of data flushed to disk, in bytes.Hadoop:service=HBase,name=RegionServer,sub=Ser
major com- pacted cells size	hbase.regionserver.majorcompactedcells.size	Sum	Long	The total amount of data pro- cessed dur- ing ma- jor com- pactions, in bytes.Hadoop:service=HBase,name=RegionServer,sub=Ser
assign min time	hbase.master.assign.minTime	Min	Long	Hadoop:service=HBase,name=Master,sub=AssignmentMa

Metric Name	Key	Agg	Type	Description
rit count over threshold	hbase.master.ritOverThreshold	Avg	Long	The number of regions that have been in transition longer than a threshold time (default: 60 seconds).Hadoop:service=HBase,name=Master,sub=Assignme
rit count	hbase.master.ritCount	Avg	Long	The number of regions in transition.Hadoop:service=HBase,name=Master,sub=Assignmen
assign	hbase.master.assign	Sum	Long	Hadoop:service=HBase,name=Master,sub=AssignmentMa

Metric Name	Key	Agg	Type	Description
assign time	hbase.master.assignment.assignTime	Sum	Derived	Hadoop:service=HBase,name=Master,sub=AssignmentMan * Assign_num_ops
bulk assign time	hbase.master.assignment.bulkAssignTime	Sum	Derived	Hadoop:service=HBase,name=Master,sub=AssignmentMan * BulkAssign_num_ops
rit oldest age	hbase.master.ritOldestAge	Max	Long	The age of the longest region in transition.Hadoop:service=HBase,name=Master,sub=Assignmen
bulk assign max time	hbase.master.assignment.bulkAssignTime	Max	Long	Hadoop:service=HBase,name=Master,sub=AssignmentMan
assign max time	hbase.master.assignment.assignTime	Max	Long	Hadoop:service=HBase,name=Master,sub=AssignmentMan
bulk assign min time	hbase.master.assignment.bulkAssignTime	Min	Long	Hadoop:service=HBase,name=Master,sub=AssignmentMan

Metric Name	Key	Agg	Type	Description
bulk assigns	hbase.master.assignm	Sum	Long	Hadoop:service=HBase,name=Master,sub=AssignmentMa
increment time	hbase.regionserver.ops	Sum	Double	Hadoop:service=HBase,name=RegionServer,sub=Server#I * Increment_mean
slow_puts	hbase.regionserver.ops	Sum	Long	The number of Puts that took over 1000ms to complete. Hadoop:service=HBase,name=RegionServer,sub=Ser
get max time	hbase.regionserver.ops	Max	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#G
append time	hbase.regionserver.ops	Sum	Double	Hadoop:service=HBase,name=RegionServer,sub=Server#A * Append_mean
deletes	hbase.regionserver.ops	Sum	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#I
replay min time	hbase.regionserver.ops	Min	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#I
mutate min time	hbase.regionserver.ops	Min	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#M

Metric Name	Key	Agg	Type	Description
get time	hbase.rs.ops.getTime_mean	Sum	Double	Hadoop:service=HBase,name=RegionServer,sub=Server#Get_mean
increment max time	hbase.rs.ops.incrementTime_max	Max	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#I
slow appends	hbase.rs.ops.appendsTooSlow	Sum	Long	The number of Appends that took over 1000ms to complete.
mutate max time	hbase.rs.ops.mutateTime_max	Max	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#M
get min time	hbase.rs.ops.getTime_min	Min	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#G
increments	hbase.rs.ops.incrementsTooSlow	Sum	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#I
replay max time	hbase.rs.ops.replayTime_max	Max	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#I
delete time	hbase.rs.ops.deleteTime_mean	Sum	Double	Hadoop:service=HBase,name=RegionServer,sub=Server#Delete_mean

Metric Name	Key	Agg	Type	Description
slow deletes	hbase.rs.ops.deletes.slow	Sum	Long	The number of Deletes that took over 1000ms to complete.
delete max time	hbase.rs.ops.deletes.max	Max	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#
appends	hbase.rs.ops.appends	Sum	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#A
append max time	hbase.rs.ops.appends.max	Max	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#A
delete min time	hbase.rs.ops.deletes.min	Min	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#
mutates	hbase.rs.ops.mutates	Sum	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#M
increment min time	hbase.rs.ops.increments.min	Min	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#
append min time	hbase.rs.ops.appends.min	Min	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#A
replay time	hbase.rs.ops.replays.mean	Sum	Double	Hadoop:service=HBase,name=RegionServer,sub=Server# * Replay_mean

Metric Name	Key	Agg	Type	Description
slow increments	hbase.rs.ops.incrementNum	Sum	Long	The number of Increments that took over 1000ms to complete.
replays	hbase.rs.ops.replayNum	Sum	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#
gets	hbase.rs.ops.getNum	Sum	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#
slow gets	hbase.rs.ops.getSlowNum	Sum	Long	The number of Gets that took over 1000ms to complete.
mutate time	hbase.rs.ops.mutateTime_mean	Double	Hadoop:service=HBase,name=RegionServer,sub=Server#	* Mutate_mean
restore max time	hbase.snapshots.restoreTimeMax	Max	Long	Hadoop:service=HBase,name=Master,sub=Snapshots#Sna

Metric Name	Key	Agg	Type	Description
snapshotTime	hbase.snapshots.snapshotTime	Snapshots	Double	Time it takes to finish snapshot().Hadoop:service=HBase,name=Master,sub=Snapshot* Snapshot_Time_mean
snapshotMaxTime	hbase.snapshots.snapshotTime_max	Snapshots	Long	Max time Hadoop:service=HBase,name=Master,sub=Snapshots#Sna
cloneTime	hbase.snapshots.cloneTime	Snapshots	Double	Time it takes to finish cloneSnapshot().Hadoop:service=HBase,name=Master,sub=Snapshot* Snapshot_Clone_Time_mean
snapshotCount	hbase.snapshots.snapshotTime_num_ops	Snapshots	Long	Count of snapshot() invocations.Hadoop:service=HBase,name=Master,sub=Snapshots

Metric Name	Key	Agg	Type	Description
restores	hbase.snapshots.restores	Snapshots	Long	Count of restoreSnapshot() invocations.Hadoop:service=HBase,name=Master,sub=Snapshots
clone min time	hbase.snapshots.clone.min	Min	Long	Time it took to run cloneSnapshot().Hadoop:service=HBase,name=Master,sub=Snapshots#Sna
clones	hbase.snapshots.clones	Snapshots	Long	Count of cloneSnapshot() invocations.Hadoop:service=HBase,name=Master,sub=Snapshots
snapshot min time	hbase.snapshots.snapshot.min	Min	Long	Time it took to run takeSnapshot().Hadoop:service=HBase,name=Master,sub=Snapshots#Sna
clone max time	hbase.snapshots.clone.max	Max	Long	Time it took to run cloneSnapshot().Hadoop:service=HBase,name=Master,sub=Snapshots#Sna

Metric Name	Key	Agg	Type	Description
restore time	hbase.snapshots.restore.time	Snapshots	Double	Time it takes to finish restoreSnapshot().Hadoop:service=HBase,name=Master,sub=Snapsho * SnapshotRestoreTime_mean
restore min time	hbase.snapshots.restore.time	Min	Long	Hadoop:service=HBase,name=Master,sub=Snapshots#Sna
meta hlog split max size	hbase.master.hlog.split.size.max	Max	Long	Hadoop:service=HBase,name=Master,sub=FileSystem#M
hlog split size	hbase.master.hlog.split.size	Summary	Double	Size of HLog files being split.Hadoop:service=HBase,name=Master,sub=FileSystem * HlogSplitSize_mean
hlog split min time	hbase.master.hlog.split.time.min	Min	Long	Hadoop:service=HBase,name=Master,sub=FileSystem#Hl

Metric Name	Key	Agg	Type	Description
hlog split max size	hbase.master.logsplitsize.max	Max	Long	Hadoop:service=HBase,name=Master,sub=FileSystem#Hl
hlog splits	hbase.master.logsplits	Sum	Long	Count of HLog.splitLog() invocations.Hadoop:service=HBase,name=Master,sub=FileSyster
meta hlog split time	hbase.master.logsplits	Sum	Double	Time it takes to finish splitMetaLog().Hadoop:service=HBase,name=Master,sub=FileSyste * MetaHlogSplitTime_mean
meta hlog split max time	hbase.master.logmetasplitstime.max	Max	Long	Hadoop:service=HBase,name=Master,sub=FileSystem#M

Metric Name	Key	Agg	Type	Description
hlog split time	hbase.master.Master.logsplit	Sum	Double	Time it takes to finish HLog.splitLog().Hadoop:service=HBase,name=Master,sub=* HlogSplitTime_mean
hlog split min size	hbase.master.Master.logsplit	Min	Long	Hadoop:service=HBase,name=Master,sub=FileSystem#Hl
meta hlog splits	hbase.master.Master.logmetasplit	Sum	Long	Count of splitMetaLog() invocations.Hadoop:service=HBase,name=Master,sub=FileSyste
meta hlog split min size	hbase.master.Master.logmetasplitsize	Min	Long	Hadoop:service=HBase,name=Master,sub=FileSystem#M
meta hlog split min time	hbase.master.Master.logmetasplittime	Min	Long	Hadoop:service=HBase,name=Master,sub=FileSystem#M

Metric Name	Key	Agg	Type	Description
meta hlog splits	hbase.master.hlogmetasplits	Sum	Long	Count of split-MetaLog() invocations.Hadoop:service=HBase,name=Master,sub=FileSyste
hlog split max time	hbase.master.hlogsplitmaxtime	Max	Long	Histogram of service=HBase,name=Master,sub=FileSystem#Hl
hlog splits	hbase.master.hlogsplits	Sum	Long	Count of HLog.splitLog() invocations.Hadoop:service=HBase,name=Master,sub=FileSyste
meta hlog split size	hbase.master.hlogsplitsize	Double	Size	splits.size of hbase:meta HLog files being split.Hadoop:service=HBase,name=Master,sub=FileSysten * MetaHlogSplitSize_mean
lower limit	hbase.regionserver.global.memstore.lowerLimit	Avg	Long	Percentage lower ‘hbase.regionserver.global.memstore.lowerLimit’ value.

Metric Name	Key	Agg	Type	Description
static bloom size	hbase.regionserver.staticBloomSize	Avg	Long	Uncompressed size of the static bloom filters.Hadoop:service=HBase,name=RegionServer,sub=Serve
store files	hbase.regionserver.storeFiles	Avg	Long	Number of Store Files.Hadoop:service=HBase,name=RegionServer,sub=Serv
store file index size	hbase.regionserver.storeIndexSize	Avg	Long	Size of indexes in store-files on disk.Hadoop:service=HBase,name=RegionServer,sub=Serv
store file size	hbase.regionserver.storeFileSize	Avg	Long	Size of store-files being served.Hadoop:service=HBase,name=RegionServer,sub=Se
mem store size	hbase.regionserver.memStoreSize	Avg	Long	Size of the mem-store.Hadoop:service=HBase,name=RegionServer,sub=Ser

Metric Name	Key	Agg	Type	Description
static index size	hbase.rs.staticIndexSize	Avg	Long	Uncompressed size of the static indexes.Hadoop:service=HBase,name=RegionServer,sub=Ser
upper limit	hbase.rs.memstore.size.upper	Avg	Long	Property upper 'hbase.regionserver.global.memstore.upperLimit' value.
stores	hbase.rs.stores	Avg	Long	Number of Stores.Hadoop:service=HBase,name=RegionServer,sub=Se
regions	hbase.rs.regions	Avg	Long	Number of regions.Hadoop:service=HBase,name=RegionServer,sub=Ser
active handlers	hbase.ipc.handlers.active	Avg	Long	Number of active rpc handlers.Hadoop:service=HBase,name=IPC,sub=IPC#numAc
process call time	hbase.ipc.handlers.process.call.time	Sum	Double	Hadoop:service=HBase,name=IPC,sub=IPC#ProcessCallT * ProcessCallTime_num_ops
process call min time	hbase.ipc.process.call.time.min	Min	Long	Hadoop:service=HBase,name=IPC,sub=IPC#ProcessCallT

Metric Name	Key	Agg	Type	Description
calls in priority queue	hbase.ipc.queue.priority.	Avg	Long	The size number of currently enqueued priority (internal housekeeping) requests.Hadoop:service=HBase,name=IPC,sub=IPC#numC
authorization successes	hbase.ipc.authorization.	Sum	Long	Number of authorization successes.Hadoop:service=HBase,name=IPC,sub=IPC#autho
received bytes	hbase.ipc.bytes.received	Sum	Long	Number of bytes received.Hadoop:service=HBase,name=IPC,sub=IPC#receiv
sent bytes	hbase.ipc.bytes.sent	Sum	Long	Number of bytes sent.Hadoop:service=HBase,name=IPC,sub=IPC#sentByt

Metric Name	Key	Agg	Type	Description
authorization_failures	hbase.ipc.authorization.failures	Sum	Long	Number of authorization failures.Hadoop:service=HBase,name=IPC,sub=IPC#authori
process call max time	hbase.ipc.ProcessCallTime_max	Max	Long	Hadoop:service=HBase,name=IPC,sub=IPC#ProcessCall
calls in replication queue	hbase.ipc.queue.replication.size	Avg	Long	Number of calls in the replication call queue.Hadoop:service=HBase,name=IPC,sub=IPC#numC
process calls	hbase.ipc.handler.num_ops	Sum	Long	Hadoop:service=HBase,name=IPC,sub=IPC#ProcessCall
calls in general queue	hbase.ipc.queue.size	Avg	Long	The number of currently enqueued user requests.Hadoop:service=HBase,name=IPC,sub=IPC#numC

Metric Name	Key	Agg	Type	Description
queue call time	hbase.ipc.queue.call.time	Sum	Double	Hadoop:service=HBase,name=IPC,sub=IPC#QueueCallTime_num_ops * Queue-Call-Time_num_ops
queue call min time	hbase.ipc.queue.call.min	Min	Long	Hadoop:service=HBase,name=IPC,sub=IPC#QueueCallTime_num_ops
queue call max time	hbase.ipc.queue.call.max	Max	Long	Hadoop:service=HBase,name=IPC,sub=IPC#QueueCallTime_num_ops
queue size	hbase.ipc.queue.size	Avg	Long	Number of bytes in the call queues.Hadoop:service=HBase,name=IPC,sub=IPC#queueSize_num_ops
authentication fail-ures	hbase.ipc.authentication.failures	Sum	Long	Number of au-then-ti-ca-tion fail-ures.Hadoop:service=HBase,name=IPC,sub=IPC#authenticationFailures_num_ops
queue calls	hbase.ipc.queue.calls	Sum	Long	Hadoop:service=HBase,name=IPC,sub=IPC#QueueCallTime_num_ops

Metric Name	Key	Agg	Type	Description
open connections	hbase.ipc.numOpenConnections	Avg	Long	The number of open connections at the RPC layer.Hadoop:service=HBase,name=IPC,sub=IPC#numOp
authentication successes	hbase.ipc.authenticationSuccesses	Sum	Long	Number of authentication successes.Hadoop:service=HBase,name=IPC,sub=IPC#authe
total requests	hbase.numRequests	Sum	Long	Total number of requests this RegionServer has answered.Hadoop:service=HBase,name=RegionServer,sub=Se
read requests	hbase.numReadRequests	Sum	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#r

Metric Name	Key	Agg	Type	Description
write requests	hbase.master.balancer.writeRequestsCount	Sum	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#w
applied ops	hbase.master.balancer.appliedOps	Sum	Long	Hadoop:service=HBase,name=RegionServer,sub=Replicati
applied batches	hbase.master.balancer.appliedBatches	Sum	Long	Hadoop:service=HBase,name=RegionServer,sub=Replicati
balancer min time	hbase.master.balancer.balancerMinTime	Min	Long	Hadoop:service=HBase,name=Master,sub=Balancer#Bala
ops	hbase.master.balancer.ops	Avg	Long	Hadoop:service=HBase,name=Master,sub=Balancer#Bala
time	hbase.master.balancer.time	Sum	Delta	Hadoop:service=HBase,name=Master,sub=Balancer#Bala * Balancer-Cluster_mean
misc invocations	hbase.master.balancer.miscInvocations	Sum	Long	Hadoop:service=HBase,name=Master,sub=Balancer#misc
balancer max time	hbase.master.balancer.balancerMaxTime	Max	Long	Hadoop:service=HBase,name=Master,sub=Balancer#Bala

Metric Name	Key	Agg	Type	Description
flushed cells	hbase.mob.flushedcells	Sum	Long	The number of mob cells flushed to disk.Hadoop:service=HBase,name=RegionServer,sub=Serv
scan cells size	hbase.mob.scancellssize	Sum	Long	The size total amount of scanned mob cells, in bytes.Hadoop:service=HBase,name=RegionServer,sub=Ser
file cache hits	hbase.mob.cachefilehits	Avg	Long	The hit percent to the mob file cache.Hadoop:service=HBase,name=RegionServer,sub=Ser
file caches	hbase.mob.cachefiles	Avg	Long	The count of cached mob files.Hadoop:service=HBase,name=RegionServer,sub=Serv

Metric Name	Key	Agg	Type	Description
compacted into mob cells	hbase.mob.compaction.cells.into	Sum	Long	The number of cells moved to mob during compaction.Hadoop:service=HBase,name=RegionServer,sub=S
file cache accesses	hbase.mob.cache.file.accesses	Sum	Long	The count of accesses to the mob file cache.Hadoop:service=HBase,name=RegionServer,sub=Ser
scan cells	hbase.mob.scan.cells	Sum	Long	The number of scanned mob cells.Hadoop:service=HBase,name=RegionServer,sub=Serv
file cache misses	hbase.mob.cache.file.misses	Sum	Long	The count of misses to the mob file cache.Hadoop:service=HBase,name=RegionServer,sub=Ser

Metric Name	Key	Agg	Type	Description
compactedfrom mob cells	hbase.mob.compactions.cells.from	Sum	Long	The number of cells moved from mob during compaction.Hadoop:service=HBase,name=RegionServer,sub=S
compactedinto mob cells size	hbase.mob.compactions.cells.into.size	Sum	Long	The total amount of cells move to mob during compaction, in bytes.Hadoop:service=HBase,name=RegionServer,sub=Ser

Metric Name	Key	Agg	Type	Description
compacted from mob cells size	hbase.mob.	Sum	Long	The total amount of cells move from mob during com- paction, in bytes.Hadoop:service=HBase,name=RegionServer,sub=Ser
file cache evic- tions	hbase.mob.	Sum	Long	The number of items evicted from the mob file cache.Hadoop:service=HBase,name=RegionServer,sub=Ser
flushes	hbase.mob.	Sum	Long	The num- ber of the flushes in mob- enabled stores.Hadoop:service=HBase,name=RegionServer,sub=Se

Metric Name	Key	Agg	Type	Description
flushed cells size	hbase.rs.mob.flushedcells.size	Sum	Long	The total amount of mob cells flushed to disk, in bytes.Hadoop:service=HBase,name=RegionServer,sub=Ser
local files	hbase.rs.localfiles	Avg	Long	The percent of HFiles that are stored on the local hdfs data node.Hadoop:service=HBase,name=RegionServer,sub=Ser
hlog files	hbase.rs.hlogfiles	Avg	Long	The number of write ahead logs not yet archived.Hadoop:service=HBase,name=RegionServer,sub=

Metric Name	Key	Agg	Type	Description
hlog files size	hbase.regionserver.hlog.size	Avg	Long	Size of all HLog Files.Hadoop:service=HBase,name=RegionServer,sub=Server
cluster requests	hbase.master.cluster.requests	Sum	Long	Hadoop:service=HBase,name=Master,sub=Server#clusterR
dead region servers	hbase.master.server.deadregionservers	Avg	Double	Hadoop:service=HBase,name=Master,sub=Server#numDe
region servers	hbase.master.server.regionservers	Avg	Double	Hadoop:service=HBase,name=Master,sub=Server#numRe
average load	hbase.master.server.averageload	Avg	Double	Hadoop:service=HBase,name=Master,sub=Server#average
mutations without wal	hbase.regionserver.mutations.nowal	Sum	Long	Number of mutations that have been sent by clients with the write ahead logging turned off.Hadoop:service=HBase,name=RegionServer,sub=Server

Metric Name	Key	Agg	Type	Description
mutate_failed_ops	hbase.ops.mutations.failed	Sum	Long	Number of Check and Mutate calls that failed the checks.Hadoop:service=HBase,name=RegionServer,sub=Se
mutate_passed_ops	hbase.ops.mutations.passed	Sum	Long	Number of Check and Mutate calls that passed the checks.Hadoop:service=HBase,name=RegionServer,sub=Se
mutations_without_wal_size	hbase.ops.mutations.nowal.size	Sum	Long	Size of data that has been sent by clients with the write ahead logging turned off.Hadoop:service=HBase,name=RegionServer,sub=Server

Metric Name	Key	Agg	Type	Description
hits	hbase.cache	Sum	Long	Count of the hit on the block cache.Hadoop:service=HBase,name=RegionServer,sub=Ser
expresshit%	hbase.cache	Avg	Long	The rate per-cent of the time that re-quests with the cache turned on hit the cache.Hadoop:service=HBase,name=RegionServer,sub=Ser
hit%	hbase.cache	Avg	Long	Percent of block cache re-quests that are hits.Hadoop:service=HBase,name=RegionServer,sub=Serv

Metric Name	Key	Agg	Type	Description
cache free size	hbase.cache.block.free	Avg	Long	Size of the block cache that is not occupied.Hadoop:service=HBase,name=RegionServer,sub=Serv
block cache size	hbase.cache.block.size	Avg	Long	Size of the block cache.Hadoop:service=HBase,name=RegionServer,sub=Ser
miss	hbase.cache.miss	Sum	Long	Number of requests for a block that missed the block cache.Hadoop:service=HBase,name=RegionServer,sub=Ser
cache count	hbase.cache.block.count	Avg	Long	Number of block in the block cache.Hadoop:service=HBase,name=RegionServer,sub=Ser

Metric Name	Key	Agg	Type	Description
evictions	hbase.cache.evictions	Sum	Latency	Count of the number of blocks evicted from the block cache.
shipped batches	hbase.replication.shipped_batches	Sum	Latency	Hadoop:service=HBase,name=RegionServer,sub=Replicati
shipped ops	hbase.replication.shipped_ops	Sum	Latency	Hadoop:service=HBase,name=RegionServer,sub=Replicati
log edits read	hbase.replication.log_edits_read	Sum	Latency	Hadoop:service=HBase,name=RegionServer,sub=Replicati
log queue	hbase.replication.log_queue	Avg	Latency	Hadoop:service=HBase,name=RegionServer,sub=Replicati
shipped bytes	hbase.replication.shipped_bytes	Sum	Latency	Hadoop:service=HBase,name=RegionServer,sub=Replicati
log edits filtered	hbase.replication.log_edits_filtered	Sum	Latency	Hadoop:service=HBase,name=RegionServer,sub=Replicati
log read bytes	hbase.replication.log_read_bytes	Sum	Latency	Hadoop:service=HBase,name=RegionServer,sub=Replicati

Metric Name	Key	Agg	Type	Description
hedged read wins	hbase.regionserver.hedgedReadWins	Sum	Long	The number of times we started a hedged read and a hedged read won.Hadoop:service=HBase,name=RegionServer,sub=Server
hedged reads	hbase.regionserver.hedgedReads	Sum	Long	The number of times we started a hedged read.Hadoop:service=HBase,name=RegionServer,sub=Server
stores	hbase.regionserver.storeCount	Avg	Long	
flushes	hbase.regionserver.flushCount	Sum	Long	
compaction	hbase.regionserver.compactionCount	Sum	Long	
store files	hbase.regionserver.storeFileCount	Avg	Long	
store file index size	hbase.regionserver.storeFileIndexSize	Avg	Long	

Metric Name	Key	Agg	Type	Description
sync	hbase.fs.sync.max	Max	Long	latency.max
read	hbase.fs.read.max	Max	Long	latency.max
write	hbase.fs.write.max	Max	Long	latency.max
sync	hbase.fs.sync.min	Min	Long	latency.min
read	hbase.fs.read.min	Min	Long	latency.min
write	hbase.fs.write.min	Min	Long	latency.min
flush queue	hbase.flushes.queue	Avg	Double	size
max	hbase.memstore.flushes.time.max	Max	Long	time.max
min	hbase.flushes.time	Min	Long	time.min
flushes	hbase.memstore.flushes	Sum	Long	flushes
max	hbase.flushes.time	Max	Long	time.max
memstore size	hbase.memstore.size	Avg	Long	size
min	hbase.memstore.flushes.time.min	Min	Long	time.min
min	hbase.compaction.time	Min	Long	time.min
max	hbase.compaction.time	Max	Long	time.max
max	hbase.compaction.size	Max	Long	size.max
compactions	hbase.compaction	Sum	Long	
compaction queue	hbase.compaction.queue	Avg	Double	size
min	hbase.compaction.size	Min	Long	size.min

Metric Name	Key	Agg	Type	Description
cache size	hbase.cache.blocks.size	Avg	Long	
miss count	hbase.cache.blocks.misses	Sum	Long	
cache free	hbase.cache.blocks.free	Avg	Long	
hit count	hbase.cache.blocks.hits	Sum	Long	
block cache count	hbase.cache.blocks.count	Avg	Long	
blockCacheHitRatio	hbase.cache.blocks.hits.ratio	Avg	Long	
evicted count	hbase.cache.blocks.evictions	Sum	Long	
blockCacheHitCachingRatio	hbase.cache.blocks.hits.caching.ratio	Avg	Long	
max	hbase.splits.time.max	Max	Long	
splits	hbase.splits	Sum	Long	
max	hbase.splits.size.max	Max	Long	
min	hbase.splits.size.min	Min	Long	
splits	hbase.splits	Sum	Long	
regions	hbase.regions	Avg	Long	

0.98

Metric Name	Key	Agg	Type	Description
total max	jvm.memory.total.max	Max	Double	Hadoop:service=HBase,name=JvmMetrics#MemMaxM
info	jvm.log.info	Sum	Long	Hadoop:service=HBase,name=JvmMetrics#LogInfo
non heap used	jvm.nonheap.used	Avg	Double	Hadoop:service=HBase,name=JvmMetrics#MemNonHeap
error	jvm.log.error	Sum	Long	Hadoop:service=HBase,name=JvmMetrics#LogError
heap com-mit-ted	jvm.heap.committed	Avg	Double	Hadoop:service=HBase,name=JvmMetrics#MemHeapCom
heap max	jvm.heap.max	Max	Double	Hadoop:service=HBase,name=JvmMetrics#MemHeapMax
blocked	jvm.threads.blocked	Avg	Long	Hadoop:service=HBase,name=JvmMetrics#ThreadsBlocke
terminated	jvm.threads.terminated	Avg	Long	Hadoop:service=HBase,name=JvmMetrics#ThreadsTermi
warn	jvm.log.warn	Sum	Long	Hadoop:service=HBase,name=JvmMetrics#LogWarn
timed wait-ing	jvm.threads.waiting.timed	Avg	Long	Hadoop:service=HBase,name=JvmMetrics#ThreadsTimed
heap used	jvm.heap.used	Avg	Double	Hadoop:service=HBase,name=JvmMetrics#MemHeapUsed
fatal	jvm.log.fatal	Sum	Long	Hadoop:service=HBase,name=JvmMetrics#LogFatal
non heap max	jvm.nonheap.max	Avg	Double	Hadoop:service=HBase,name=JvmMetrics#MemNonHeap
waiting	jvm.threads.waiting	Avg	Long	Hadoop:service=HBase,name=JvmMetrics#ThreadsWaiti
new	jvm.threads.new	Avg	Long	Hadoop:service=HBase,name=JvmMetrics#ThreadsNew

Metric Name	Key	Agg	Type	Description
non heap committed	jvm.nonheap.committed	Avg	Double	Hadoop:service=HBase,name=JvmMetrics#MemNonHeap
runnable	jvm.threads.runnable	Avg	Long	Hadoop:service=HBase,name=JvmMetrics#ThreadsRunna
ops	hbase.ugi.UgiMetrics.GetGroupsNumOps	Sum	Long	Hadoop:service=HBase,name=UgiMetrics#GetGroupsNum
failure time	hbase.ugi.UgiMetrics.LoginFailureAvgTime	Sum	Double	Hadoop:service=HBase,name=UgiMetrics#LoginFailureAv * LoginFailureNumOps
success time	hbase.ugi.UgiMetrics.LoginSuccessAvgTime	Sum	Double	Hadoop:service=HBase,name=UgiMetrics#LoginSuccessAv * LoginSuccessNumOps
success ops	hbase.ugi.UgiMetrics.LoginSuccessNumOps	Sum	Long	Hadoop:service=HBase,name=UgiMetrics#LoginSuccessNu
failure ops	hbase.ugi.UgiMetrics.LoginFailureNumOps	Sum	Long	Hadoop:service=HBase,name=UgiMetrics#LoginFailureNu
time	hbase.ugi.UgiMetrics.GetGroupsAvgTime	Sum	Double	Hadoop:service=HBase,name=UgiMetrics#v * GetGroupsNumOps

Metric Name	Key	Agg	Type	Description
syncs	hbase.regionserver.wal.syncs	Sum	Long	Count of syncs the HLog to HDFS.
appendTime	hbase.regionserver.wal.appendTime	Sum	Double	Hadoop:service=HBase,name=RegionServer,sub=WAL#AppendTime an append to the log took.
appendMax	hbase.regionserver.wal.appendTime	Max	Double	Hadoop:service=HBase,name=RegionServer,sub=WAL#AppendTime* AppendTime_mean
appendMax	hbase.regionserver.wal.appendTime	Max	Double	Hadoop:service=HBase,name=RegionServer,sub=WAL#AppendTime* AppendTime_mean
syncTime	hbase.regionserver.wal.syncTime	Sum	Double	The time it took to sync the HLog to HDFS.
syncTime	hbase.regionserver.wal.syncTime	Sum	Double	Hadoop:service=HBase,name=RegionServer,sub=WAL#SyncTime* SyncTime_mean

Metric Name	Key	Agg	Type	Description
appends	hbase.wal.appends	Sum	Long	Count of appends to the log.
appendSize	hbase.wal.appendSize	Sum	DoubleHisto	Size (in bytes) of the data appended to the HLog.
appendSize_mean	hbase.wal.appendSize	Mean	Long	Hadoop:service=HBase,name=RegionServer,sub=WAL# * AppendSize_mean
appendSize_max	hbase.wal.appendSize	Max	Long	Hadoop:service=HBase,name=RegionServer,sub=WAL#A max size
appendTime_min	hbase.wal.appendTime	Min	Long	Hadoop:service=HBase,name=RegionServer,sub=WAL#A min time
appends	hbase.wal.appends	Sum	Long	Count of appends to the log.

Metric Name	Key	Agg	Type	Description
sync max time	hbase.regionserver.wal.sync_max	Max	Long	The long.Hadoop:service=HBase,name=RegionServer,sub=WAL#Sy
appends	hbase.regionserver.wal.appends	Sum	Long	Count of appends to the log.Hadoop:service=HBase,name=RegionServer,sub=WAL
append min size	hbase.regionserver.wal.append_size_min	Min	Long	The smallest.Hadoop:service=HBase,name=RegionServer,sub=WAL#A
sync min time	hbase.regionserver.wal.sync_min	Min	Long	The long.Hadoop:service=HBase,name=RegionServer,sub=WAL#Sy
slow appends	hbase.regionserver.wal.slow_appends	Sum	Long	Number of appends that were slow.Hadoop:service=HBase,name=RegionServer,sub=WA

Metric Name	Key	Agg	Type	Description
compactionQueue	hbase.regionserver.compactionQueueLength	Avg	Instantaneous	Current depth of the compaction request queue. If increasing, we are falling behind with storefile compaction.Hadoop:service=HBase,name=RegionServer,sub=S
cells size	hbase.regionserver.compactedCellsSize	Sum	Incremental Delta	Total amount of data processed during minor compactions, in bytes.Hadoop:service=HBase,name=RegionServer,sub=Ser

Metric Name	Key	Agg	Type	Description
updates blocked time	hbase.regionserver.updatesBlockedTime	Sum	Long	Number of MS updates have been blocked so that the memstore can be flushed.Hadoop:service=HBase,name=RegionServer,sub=S
major compacted cells	hbase.regionserver.majorCompactionCells	Sum	Long	The number of cells processed during major compactions.Hadoop:service=HBase,name=RegionServer,sub=

Metric Name	Key	Agg	Type	Description
flush queue	hbase.regionserver.flushQueueLength	Avg	Instantaneous	Length of the queue for region flushes.If increasing, we are falling behind with clearing memstores out to HDFS.Hadoop:service=HBase,name=RegionServer,sub=Se
compacted cells	hbase.regionserver.compactedCells	Sum	Incremental	The number of cells processed during minor compactions.Hadoop:service=HBase,name=RegionServer,sub=

Metric Name	Key	Agg	Type	Description
flushed cells	hbase.regionserver.flushedcells	Sum	Long	The number of cells flushed to disk.Hadoop:service=HBase,name=RegionServer,sub=Serv
flushed cells size	hbase.regionserver.flushedcells.size	Sum	Long	The total amount of data flushed to disk, in bytes.Hadoop:service=HBase,name=RegionServer,sub=Ser
major compacted cells size	hbase.regionserver.majorcompactedcells.size	Sum	Long	The total amount of data processed during major compactions, in bytes.Hadoop:service=HBase,name=RegionServer,sub=Ser
assign min time	hbase.master.assign.min	Min	Long	Hadoop:service=HBase,name=Master,sub=AssignmentMa

Metric Name	Key	Agg	Type	Description
rit count over threshold	hbase.master.ritCountOver	Master	Long	The number of regions that have been in transition longer than a threshold time (default: 60 seconds).Hadoop:service=HBase,name=Master,sub=Assignme
rit count	hbase.master.ritCount	Master	Long	The number of regions in transition.Hadoop:service=HBase,name=Master,sub=Assignmen
assign	hbase.master.assign	Master	Long	Hadoop:service=HBase,name=Master,sub=AssignmentMa

Metric Name	Key	Agg	Type	Description
assign time	hbase.master.assignment.Hadoop:service=HBase,name=Master,sub=AssignmentMan	Sum	Derived	* Assign_num_ops
bulk assign time	hbase.master.assignment.Hadoop:service=HBase,name=Master,sub=AssignmentMan	Sum	Derived	* BulkAssign_num_ops
rit oldest age	hbase.master.assignment.	Max	Long	The age of the longest region in transition.Hadoop:service=HBase,name=Master,sub=Assignmen
bulk assign max time	hbase.master.assignment.Hadoop:service=HBase,name=Master,sub=AssignmentMan	Max	Long	
assign max time	hbase.master.assignment.Hadoop:service=HBase,name=Master,sub=AssignmentMan	Max	Long	
bulk assign min time	hbase.master.assignment.Hadoop:service=HBase,name=Master,sub=AssignmentMan	Min	Long	

Metric Name	Key	Agg	Type	Description
bulk assigns	hbase.master.assignmentManager.bulkAssign	Sum	Long	Hadoop:service=HBase,name=Master,sub=AssignmentMan
increment time	hbase.regionserver.ops.incrementTime	Sum	DoubleHistogram	Hadoop:service=HBase,name=RegionServer,sub=Server#I * Increment_mean
slow_puts	hbase.regionserver.ops.slowPuts	Sum	Long	The number of Puts that took over 1000ms to complete. Hadoop:service=HBase,name=RegionServer,sub=Ser
get max time	hbase.regionserver.ops.getTimeMax	Max	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#G
append time	hbase.regionserver.ops.appendTime	Sum	DoubleHistogram	Hadoop:service=HBase,name=RegionServer,sub=Server#A * Append_mean
deletes	hbase.regionserver.ops.deleteTime	Sum	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#I
replay min time	hbase.regionserver.ops.replayTime	Min	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#I
mutate min time	hbase.regionserver.ops.mutateTime	Min	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#M

Metric Name	Key	Agg	Type	Description
get time	hbase.rs.ops.getTime_*	Sum	Double	Hadoop:service=HBase,name=RegionServer,sub=Server#G
increment max time	hbase.rs.ops.incrementTime_max	Max	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#I
slow appends	hbase.rs.ops.appendsTooSlow	Sum	Long	The number of Appends that took over 1000ms to complete.
Hadoop:service=HBase,name=RegionServer,sub=Ser				
mutate max time	hbase.rs.ops.mutateTime_max	Max	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#M
get min time	hbase.rs.ops.getTime_min	Min	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#G
increment	hbase.rs.ops.incrementTime	Sum	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#I
replay max time	hbase.rs.ops.replayTime_max	Max	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#I
delete time	hbase.rs.ops.deleteTime_*	Sum	Double	Hadoop:service=HBase,name=RegionServer,sub=Server#I

Metric Name	Key	Agg	Type	Description
slow deletes	hbase.rs.ops.deletes.slow	Sum	Long	The number of Deletes that took over 1000ms to complete.
delete max time	hbase.rs.ops.deletes.max	Max	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#
appends	hbase.rs.ops.appends	Sum	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#A
append max time	hbase.rs.ops.appends.max	Max	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#A
delete min time	hbase.rs.ops.deletes.min	Min	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#
mutates	hbase.rs.ops.mutates	Sum	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#M
increment min time	hbase.rs.ops.increments.min	Min	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#
append min time	hbase.rs.ops.appends.min	Min	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#A
replay time	hbase.rs.ops.replays.mean	Sum	Double	Hadoop:service=HBase,name=RegionServer,sub=Server# * Replay_mean

Metric Name	Key	Agg	Type	Description
slow increments	hbase.rs.ops.incrementNum	Sum	Long	The number of Increments that took over 1000ms to complete.
replays	hbase.rs.ops.replayNum	Sum	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#
gets	hbase.rs.ops.getNum	Sum	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#
slow gets	hbase.rs.ops.getSlowNum	Sum	Long	The number of Gets that took over 1000ms to complete.
mutate time	hbase.rs.ops.mutateTime_mean	Double	Hadoop:service=HBase,name=RegionServer,sub=Server#	* Mutate_mean
restore max time	hbase.snapshots.restoreTimeMax	Max	Long	Hadoop:service=HBase,name=Master,sub=Snapshots#Sna

Metric Name	Key	Agg	Type	Description
snapshotTime	hbase.snapshots	Snapshot	Double	Time it takes to finish snapshot().Hadoop:service=HBase,name=Master,sub=Snapshot* Snapshot_Time_mean
snapshotMaxTime	hbase.snapshots	Snapshot	Long	Max time Hadoop:service=HBase,name=Master,sub=Snapshots#Snapshot_Time_max
cloneTime	hbase.snapshots	Snapshot	Double	Time it takes to finish cloneSnapshot().Hadoop:service=HBase,name=Master,sub=Snapshot* Snapshot_Clone_Time_mean
snapshotNumOps	hbase.snapshots	Snapshot	Long	Count of snapshot() invocations.Hadoop:service=HBase,name=Master,sub=Snapshots

Metric Name	Key	Agg	Type	Description
restores	hbase.snapshots.restores	Snapshots	Long	Count of restoreSnapshot() invocations.Hadoop:service=HBase,name=Master,sub=Snapshots
clone min time	hbase.snapshots.clone.min	Min	Long	Time it took to run cloneSnapshot().Hadoop:service=HBase,name=Master,sub=Snapshots#Sna
clones	hbase.snapshots.clones	Snapshots	Long	Count of cloneSnapshot() invocations.Hadoop:service=HBase,name=Master,sub=Snapshots
snapshot min time	hbase.snapshots.snapshot.min	Min	Long	Time it took to run snapshot().Hadoop:service=HBase,name=Master,sub=Snapshots#Sna
clone max time	hbase.snapshots.clone.max	Max	Long	Time it took to run cloneSnapshot().Hadoop:service=HBase,name=Master,sub=Snapshots#Sna

Metric Name	Key	Agg	Type	Description
restore time	hbase.snapshots.restore.time	Snapshots	Double	Time it takes to finish restoreSnapshot().Hadoop:service=HBase,name=Master,sub=Snapshot * SnapshotRestoreTime_mean
restore min time	hbase.snapshots.restore.time	Min	Long	Hadoop:service=HBase,name=Master,sub=Snapshots#Sna
meta hlog split max size	hbase.master.hlog.split.size.max	Max	Long	Hadoop:service=HBase,name=Master,sub=FileSystem#M
hlog split size	hbase.master.hlog.split.size	Summary	Double	Size of HLog files being split.Hadoop:service=HBase,name=Master,sub=FileSystem * HlogSplitSize_mean
hlog split min time	hbase.master.hlog.split.time	Min	Long	Hadoop:service=HBase,name=Master,sub=FileSystem#Hl

Metric Name	Key	Agg	Type	Description
hlog split max size	hbase.master.logsplit.hlog.max	Max	Long	Hadoop:service=HBase,name=Master,sub=FileSystem#Hl
hlog splits	hbase.master.logsplit.hlog.splits	Sum	Long	Count of HLog.splitLog() invocations.Hadoop:service=HBase,name=Master,sub=FileSyster
meta hlog split time	hbase.master.logsplit.hlog.metasplits.time	Sum	Double	Time it takes to finish splitMetaLog().Hadoop:service=HBase,name=Master,sub=FileSyste * MetaHlogSplitTime_mean
meta hlog split max time	hbase.master.logsplit.hlog.metasplits.time.max	Max	Long	Hadoop:service=HBase,name=Master,sub=FileSystem#M

Metric Name	Key	Agg	Type	Description
hlog split time	hbase.master.Master.logsplit	Sum	Double	Time it takes to finish HLog.splitLog().Hadoop:service=HBase,name=Master,sub=* HlogSplitTime_mean
hlog split min size	hbase.master.Master.logsplit	Min	Long	Hadoop:service=HBase,name=Master,sub=FileSystem#Hl
meta hlog splits	hbase.master.Master.logmetasplit	Sum	Long	Count of splitMetaLog() invocations.Hadoop:service=HBase,name=Master,sub=FileSyste
meta hlog split min size	hbase.master.Master.logmetasplit	Min	Long	Hadoop:service=HBase,name=Master,sub=FileSystem#M
meta hlog split min time	hbase.master.Master.logmetasplit	Min	Long	Hadoop:service=HBase,name=Master,sub=FileSystem#M

Metric Name	Key	Agg	Type	Description
meta hlog splits	hbase.master.hlog.metasplits	Sum	Long	Count of split-Meta-a-Log() invocations.Hadoop:service=HBase,name=Master,sub=FileSyste
hlog split max time	hbase.master.hlog.splitmaxtime	Max	Long	Histogram.Hadoop:service=HBase,name=Master,sub=FileSystem#Hl
hlog splits	hbase.master.hlog.splits	Sum	Long	Count of HLog.splitLog() invocations.Hadoop:service=HBase,name=Master,sub=FileSyste
meta hlog split size	hbase.master.hlog.metasplitsize	Double	Size	Size of hbase:meta HLog files being split.Hadoop:service=HBase,name=Master,sub=FileSysten * MetaHlogSplitSize_mean
lower limit	hbase.regionserver.global.memstore.lowerLimit	Avg	Long	Percentage value.

Metric Name	Key	Agg	Type	Description
static bloom size	hbase.regionserver.staticBloomSize	Avg	Long	Uncompressed size of the static bloom filters.Hadoop:service=HBase,name=RegionServer,sub=Serve
store files	hbase.regionserver.storeFiles	Avg	Long	Number of Store Files.Hadoop:service=HBase,name=RegionServer,sub=Serv
store file index size	hbase.regionserver.storeFileIndexSize	Avg	Long	Size of indexes in store-files on disk.Hadoop:service=HBase,name=RegionServer,sub=Serv
store file size	hbase.regionserver.storeFileSize	Avg	Long	Size of store-files being served.Hadoop:service=HBase,name=RegionServer,sub=Se
mem store size	hbase.regionserver.memStoreSize	Avg	Long	Size of the mem-store.Hadoop:service=HBase,name=RegionServer,sub=Ser

Metric Name	Key	Agg	Type	Description
static index size	hbase.rs.staticIndexSize	Avg	Long	Uncompressed size of the static indexes.Hadoop:service=HBase,name=RegionServer,sub=Ser
upper limit	hbase.rs.memstoreSizeUpperLimit	Avg	Long	Percent of ‘hbase.regionserver.global.memstore.upperLimit’ value.
stores	hbase.rs.stores	Avg	Long	Number of Stores.Hadoop:service=HBase,name=RegionServer,sub=Se
regions	hbase.rs.regions	Avg	Long	Number of regions.Hadoop:service=HBase,name=RegionServer,sub=Ser
active handlers	hbase.ipc.numActiveHandlers	Avg	Long	Number of active rpc handlers.Hadoop:service=HBase,name=IPC,sub=IPC#numAc
process call time	hbase.ipc.ProcessCallTime_num_ops	Sum	Double	Number of process call time operations.Hadoop:service=HBase,name=IPC,sub=IPC#ProcessCallT * Process-Call-Time_num_ops
process call min time	hbase.ipc.ProcessCallTime_min	Min	Long	The minimum process call time.Hadoop:service=HBase,name=IPC,sub=IPC#ProcessCallT

Metric Name	Key	Agg	Type	Description
calls in priority queue	hbase.ipc.queue.priority.	Avg	Long	The size number of currently enqueued priority (internal housekeeping) requests.Hadoop:service=HBase,name=IPC,sub=IPC#numC
authorization successes	hbase.ipc.authorization.	Sum	Long	Number of authorization successes.Hadoop:service=HBase,name=IPC,sub=IPC#autho
received bytes	hbase.ipc.bytes.received	Sum	Long	Number of bytes received.Hadoop:service=HBase,name=IPC,sub=IPC#receiv
sent bytes	hbase.ipc.bytes.sent	Sum	Long	Number of bytes sent.Hadoop:service=HBase,name=IPC,sub=IPC#sentByt

Metric Name	Key	Agg	Type	Description
authorization_failures	hbase.ipc.authorization.failures	Sum	Long	Number of authorization failures.Hadoop:service=HBase,name=IPC,sub=IPC#authori
process call max time	hbase.ipc.process.call.max	Max	Long	Hadoop:service=HBase,name=IPC,sub=IPC#ProcessCall
calls in replication queue	hbase.ipc.replication.queue.size	Avg	Long	Number of calls in the replication call queue.Hadoop:service=HBase,name=IPC,sub=IPC#numC
process calls	hbase.ipc.process.calls	Sum	Long	Hadoop:service=HBase,name=IPC,sub=IPC#ProcessCall
calls in general queue	hbase.ipc.queue.size	Avg	Long	The number of currently enqueued user requests.Hadoop:service=HBase,name=IPC,sub=IPC#numC

Metric Name	Key	Agg	Type	Description
queue call time	hbase.ipc.queue.call.time	Sum	Double	Hadoop:service=HBase,name=IPC,sub=IPC#QueueCallTime_num_ops * Queue-Call-Time_num_ops
queue call min time	hbase.ipc.queue.call.min	Min	Long	Hadoop:service=HBase,name=IPC,sub=IPC#QueueCallTime_num_ops
queue call max time	hbase.ipc.queue.call.max	Max	Long	Hadoop:service=HBase,name=IPC,sub=IPC#QueueCallTime_num_ops
queue size	hbase.ipc.queue.size	Avg	Long	Number of bytes in the call queues.Hadoop:service=HBase,name=IPC,sub=IPC#queueSize_num_ops
authentication fail-ures	hbase.ipc.authentication.failures	Sum	Long	Number of au-then-ti-ca-tion fail-ures.Hadoop:service=HBase,name=IPC,sub=IPC#authenticationFailures_num_ops
queue calls	hbase.ipc.queue.calls	Sum	Long	Hadoop:service=HBase,name=IPC,sub=IPC#QueueCallTime_num_ops

Metric Name	Key	Agg	Type	Description
open connections	hbase.ipc.numOpenConnections	Avg	Long	The number of open connections at the RPC layer.Hadoop:service=HBase,name=IPC,sub=IPC#numOp
authentication successes	hbase.ipc.numAuthenticationSuccesses	Sum	Long	Number of authentication successes.Hadoop:service=HBase,name=IPC,sub=IPC#authe
total requests	hbase.requests	Sum	Long	Total number of requests this RegionServer has answered.Hadoop:service=HBase,name=RegionServer,sub=Se
read requests	hbase.readRequestsCount	Sum	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#r

Metric Name	Key	Agg	Type	Description
write requests	hbase.master.balancer.writeRequestsCount	Sum	Long	Hadoop:service=HBase,name=RegionServer,sub=Server#w
applied ops	hbase.master.balancer.appliedOps	Sum	Long	Hadoop:service=HBase,name=RegionServer,sub=Replicati
applied batches	hbase.master.balancer.appliedBatches	Sum	Long	Hadoop:service=HBase,name=RegionServer,sub=Replicati
balancer min time	hbase.master.balancer.balancerMinTime	Min	Long	Hadoop:service=HBase,name=Master,sub=Balancer#Bala
ops	hbase.master.balancer.ops	Avg	Long	Hadoop:service=HBase,name=Master,sub=Balancer#Bala
time	hbase.master.balancer.time	Sum	Dabale	Hadoop:service=HBase,name=Master,sub=Balancer#Bala * Bal- ancer- Clus- ter_mean
misc in-vo-ca-tions	hbase.master.balancer.miscInvocations	Sum	Long	Hadoop:service=HBase,name=Master,sub=Balancer#misc
balancer max time	hbase.master.balancer.balancerMaxTime	Max	Long	Hadoop:service=HBase,name=Master,sub=Balancer#Bala

Metric Name	Key	Agg	Type	Description
flushed cells	hbase.regionserver.mob.flushedcells	Sum	Long	The number of mob cells flushed to disk.Hadoop:service=HBase,name=RegionServer,sub=Serv
scan cells size	hbase.regionserver.mob.scancellssize	Sum	Long	The size total amount of scanned mob cells, in bytes.Hadoop:service=HBase,name=RegionServer,sub=Ser
file cache hits	hbase.regionserver.mob.cachefilehits	Avg	Long	The hit percent to the mob file cache.Hadoop:service=HBase,name=RegionServer,sub=Ser
file caches	hbase.regionserver.mob.cachefiles	Avg	Long	The count of cached mob files.Hadoop:service=HBase,name=RegionServer,sub=Serv

Metric Name	Key	Agg	Type	Description
compacted into mob cells	hbase.mob.compaction.cells.into	Sum	Long	The number of cells moved to mob during compaction.Hadoop:service=HBase,name=RegionServer,sub=S
file cache accesses	hbase.mob.cache.file.accesses	Sum	Long	The count of accesses to the mob file cache.Hadoop:service=HBase,name=RegionServer,sub=Ser
scan cells	hbase.mob.scan.cells	Sum	Long	The number of scanned mob cells.Hadoop:service=HBase,name=RegionServer,sub=Serv
file cache misses	hbase.mob.cache.file.misses	Sum	Long	The count of misses to the mob file cache.Hadoop:service=HBase,name=RegionServer,sub=Ser

Metric Name	Key	Agg	Type	Description
compactedfrom mob cells	hbase.mob.compactions.cells.from	Sum	Long	The number of cells moved from mob during compaction.Hadoop:service=HBase,name=RegionServer,sub=S
compactedinto mob cells size	hbase.mob.compactions.cells.into.size	Sum	Long	The total amount of cells move to mob during compaction, in bytes.Hadoop:service=HBase,name=RegionServer,sub=Ser

Metric Name	Key	Agg	Type	Description
compacted from mob cells size	hbase.mob.	Sum	Long	The total amount of cells move from mob during com- paction, in bytes.Hadoop:service=HBase,name=RegionServer,sub=Ser
file cache evic- tions	hbase.mob.	Sum	Long	The number of items evicted from the mob file cache.Hadoop:service=HBase,name=RegionServer,sub=Ser
flushes	hbase.mob.	Sum	Long	The number of the flushes in mob- enabled stores.Hadoop:service=HBase,name=RegionServer,sub=Se

Metric Name	Key	Agg	Type	Description
flushed cells size	hbase.mob.flushes.cells.size	Sum	Long	The total amount of mob cells flushed to disk, in bytes.Hadoop:service=HBase,name=RegionServer,sub=Ser
local files	hbase.regionserver.hdfs.local	Avg	Long	The percent of HFiles that are stored on the local hdfs data node.Hadoop:service=HBase,name=RegionServer,sub=Serv
hlog files	hbase.regionserver.hlog	Avg	Long	The number of write ahead logs not yet archived.Hadoop:service=HBase,name=RegionServer,sub=

Metric Name	Key	Agg	Type	Description
hlog files size	hbase.regionserver.hlog.size	Avg	Long	Size of all HLog Files.Hadoop:service=HBase,name=RegionServer,sub=Server
cluster requests	hbase.master.cluster.requests	Sum	Long	Hadoop:service=HBase,name=Master,sub=Server#clusterR
dead region servers	hbase.master.server.deadregionservers	Avg	Double	Hadoop:service=HBase,name=Master,sub=Server#numDe
region servers	hbase.master.server.regionservers	Avg	Double	Hadoop:service=HBase,name=Master,sub=Server#numRe
average load	hbase.master.server.averageload	Avg	Double	Hadoop:service=HBase,name=Master,sub=Server#average
mutations without wal	hbase.regionserver.wal.nonwalmutations	Sum	Long	Number of mutations that have been sent by clients with the write ahead logging turned off.Hadoop:service=HBase,name=RegionServer,sub=Server

Metric Name	Key	Agg	Type	Description
mutate_failed_ops	hbase.ops.mutations.failed	Sum	Long	Number of Check and Mutate calls that failed the checks.Hadoop:service=HBase,name=RegionServer,sub=Se
mutate_passed_ops	hbase.ops.mutations.passed	Sum	Long	Number of Check and Mutate calls that passed the checks.Hadoop:service=HBase,name=RegionServer,sub=Se
mutations_without_wal_size	hbase.ops.mutations.nowal.size	Sum	Long	Size of data that has been sent by clients with the write ahead logging turned off.Hadoop:service=HBase,name=RegionServer,sub=Server

Metric Name	Key	Agg	Type	Description
hits	hbase.cache	Sum	Long	Count of the hit on the block cache.Hadoop:service=HBase,name=RegionServer,sub=Ser
expresshit%	hbase.cache	Avg	Long	The rate per-cent of the time that re-quests with the cache turned on hit the cache.Hadoop:service=HBase,name=RegionServer,sub=Ser
hit%	hbase.cache	Avg	Long	Percent of block cache re-quests that are hits.Hadoop:service=HBase,name=RegionServer,sub=Serv

Metric Name	Key	Agg	Type	Description
cache free size	hbase.cache.blockcache.free	Avg	Long	Size of the block cache that is not occupied.Hadoop:service=HBase,name=RegionServer,sub=Serv
block cache size	hbase.cache.blockcache.size	Avg	Long	Size of the block cache.Hadoop:service=HBase,name=RegionServer,sub=Ser
miss	hbase.cache.misses	Sum	Long	Number of requests for a block that missed the block cache.Hadoop:service=HBase,name=RegionServer,sub=Ser
cache count	hbase.cache.blockcount	Avg	Long	Number of block in the block cache.Hadoop:service=HBase,name=RegionServer,sub=Ser

Metric Name	Key	Agg	Type	Description
evictions	hbase.cache.evictions	Sum	Latency	Count of the number of blocks evicted from the block cache.
shipped batches	hbase.replication.shipped_batches	Sum	Latency	Hadoop:service=HBase,name=RegionServer,sub=Replicati
shipped ops	hbase.replication.shipped_ops	Sum	Latency	Hadoop:service=HBase,name=RegionServer,sub=Replicati
log edits read	hbase.replication.log_edits_read	Sum	Latency	Hadoop:service=HBase,name=RegionServer,sub=Replicati
log queue	hbase.replication.log_queue	Avg	Latency	Hadoop:service=HBase,name=RegionServer,sub=Replicati
shipped bytes	hbase.replication.shipped_bytes	Sum	Latency	Hadoop:service=HBase,name=RegionServer,sub=Replicati
log edits filtered	hbase.replication.log_edits_filtered	Sum	Latency	Hadoop:service=HBase,name=RegionServer,sub=Replicati
log read bytes	hbase.replication.log_read_bytes	Sum	Latency	Hadoop:service=HBase,name=RegionServer,sub=Replicati

Metric Name	Key	Agg	Type	Description
hedged read wins	hbase.reads.hedged.wins	Sum	Long	The number of times we started a hedged read and a hedged read won.Hadoop:service=HBase,name=RegionServer,sub=Serv
hedged reads	hbase.reads.hedged	Sum	Long	The number of times we started a hedged read.Hadoop:service=HBase,name=RegionServer,sub=Serv

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Metric Name	Key	Agg	Type	Description
stores	hbase.stores	Avg	Long	
flushes	hbase.flushes	Sum	Long	
compactions	hbase.compactions	Sum	Long	
store files	hbase.store.files	Avg	Long	
store file index size	hbase.store.index.size	Avg	Long	
sync	hbase.fs.sync.latency.max	Max	Long	
read	hbase.fs.read.latency.max	Max	Long	
write	hbase.fs.write.latency.max	Max	Long	
sync	hbase.fs.sync.latency.min	Min	Long	

Metric Name	Key	Agg	Type	Description
read	hbase.fs.read.latency.min	Min	Long	
write	hbase.fs.write.latency.min	Min	Long	
flush queue	hbase.flushes.queue.size	Avg	Double	
max	hbase.memstore.flushes.time.max	Max	Long	
min	hbase.flushes.size.min	Min	Long	
flushes	hbase.memstore.flushes	Sum	Long	
max	hbase.flushes.size.max	Max	Long	
memstore size	hbase.memstore.size	Avg	Long	
min	hbase.memstore.flushes.time.min	Min	Long	
min	hbase.compactions.time.min	Min	Long	
max	hbase.compactions.time.max	Max	Long	
max	hbase.compactions.size.max	Max	Long	
compactions	hbase.compactions	Sum	Long	
compaction queue	hbase.compactions.queue.size	Avg	Double	
min	hbase.compactions.size.min	Min	Long	
cache size	hbase.cache.block.size	Avg	Long	
miss count	hbase.cache.block.misses	Sum	Long	
cache free	hbase.cache.block.free	Avg	Long	
hit count	hbase.cache.block.hits	Sum	Long	
block cache count	hbase.cache.block.count	Avg	Long	
blockCacheHitRatio	hbase.cache.block.hits.ratio	Avg	Long	
evicted count	hbase.cache.block.evictions	Sum	Long	
blockCacheHitCachingRatio	hbase.cache.block.caching.hits.ratio	Avg	Long	
max	hbase.splits.time.max	Max	Long	
splits	hbase.splits	Sum	Long	
max	hbase.splits.size.max	Max	Long	
min	hbase.splits.size.min	Min	Long	
splits	hbase.splits	Sum	Long	
regions	hbase.regions	Avg	Long	