Release Notes - Hadoop HBase - Version 0.20.4

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1.1. Sub-task

- [HBASE-2242] - [EC2] Downgrade JDK to 6u17 and rebuild AMIs
- [HBASE-2263] - [stargate] multiuser mode: authenticator for zookeeper
- [HBASE-2274] - [stargate] support specification of filters for scanners: JSON descriptors
- [HBASE-2319] - [stargate] multiuser mode: request shaping

1.2. Bug

- [HBASE-1679] - Flapping DNS does us more harm than it need to
- [HBASE-2023] - Client sync block can cause 1 thread of a multi-threaded client to block all others
- [HBASE-2063] - For hfileoutputformat, on timeout/failure/kill clean up half-written hfile
- [HBASE-2087] - The wait on compaction because "Too many store files" holds up all flushing
- [HBASE-2173] - New idx javadoc not included with the rest
- [HBASE-2177] - Add timestamping to gc logging options
- [HBASE-2180] - Bad random read performance from synchronizing hfile.fddatainputstream
- [HBASE-2199] - hbase.client.tableindexed.IndexSpecification, lines 72-73 should be reversed
- [HBASE-2202] - IdxRegion crash when binary characters
- [HBASE-2203] - [IHBase] Include only those columns required for indexed scan
- [HBASE-2204] - [IHBASE] Index expression evaluation should fail with a DoNotRetryException in case of an invalid index specification
- [HBASE-2205] - [IHBASE] Updated Idx pacakge javadocs
- [HBASE-2206] - [IHBASE] Idx memory allocation fix
- [HBASE-2207] - [IHBASE] Index partial column values
- [HBASE-2210] - NPE in thrift deleteAll
- [HBASE-2227] - [IHBASE] Idx Expression functionality is incompatible with SingleColumnValueFilter
- [HBASE-2241] - Change balancer sloppyness from 0.1 to 0.3
- [HBASE-2244] - META gets inconsistent in a number of crash scenarios
- [HBASE-2248] - Provide new non-copy mechanism to assure atomic reads in get and scan
- [HBASE-2252] - Mapping a very big table kills region servers
- [HBASE-2258] - The WhileMatchFilter doesn't delegate the call to filterRow()
- [HBASE-2259] - StackOverflow in ExplicitColumnTracker when row has many columns

- [HBASE-2271] - tableindexed.TestIndexedTable hanging
- [HBASE-2284] - fsWriteLatency metric may be incorrectly reported
- [HBASE-2288] - Shell fails on alter
- [HBASE-2293] - CME in RegionManager#isMetaServer
- [HBASE-2322] - deadlock between put and cacheflusher in 0.20 branch
- [HBASE-2335] - mapred package docs don't say zookeeper jar is a dependency.
- [HBASE-2346] - Usage of FilterList slows down scans
- [HBASE-2355] - unsychronized logWriters map is mutated from several threads in HLog splitting
- [HBASE-2358] - Store doReconstructionLog will fail if oldlogfile.log is empty and won't load region
- [HBASE-2365] - Double-assignment around split
- [HBASE-2373] - Remove confusing log message of how "BaseScanner GET got different address/startcode than SCAN"
- [HBASE-2378] - Bulk insert with multiple reducers broken due to improper ImmutableBytesWritable comparator
- [HBASE-2402] - [stargate] set maxVersions on gets
- [HBASE-2407] - NPE in TableServers.deleteCachedLocation
- [HBASE-2417] - HCM.locateRootRegion fails hard on "Connection refused"
- [HBASE-2422] - Remove fragmentation indicator for 0.20.4... fix in 0.20.5.
- [HBASE-2439] - HBase can get stuck if updates to META are blocked
- [HBASE-2443] - IPC client can throw NPE if socket creation fails
- [HBASE-2448] - Scanner threads are interrupted without acquiring lock properly
- [HBASE-2451] - .META. by-passes cache; BLOCKCACHE=>'false'
- [HBASE-2456] - deleteChangedReaderObserver spitting warnings after HBASE-2248
- [HBASE-2457] - RS gets stuck compacting region ad infinitum
- [HBASE-2458] - Client stuck in TreeMap,remove
- [HBASE-2460] - add_table.rb deletes any tables for which the target table name is a prefix
- [HBASE-2474] - Bug in 2248 - mixed version reads (not allowed by spec)
- [HBASE-2499] - Race condition when disabling a table leaves regions in transition
- [HBASE-2509] - NPEs in various places, HRegion.get, HRS.close

1.3. Improvement

- [HBASE-1505] - [performance] hfile should change how it reads from hdfs -- pread/seek+read -- dependent on recent history
- [HBASE-1892] - [performance] make hbase splits run faster
- [HBASE-2167] - PE for IHBase
- [HBASE-2174] - Stop from resolving HRegionServer addresses to names using DNS on every heartbeat

- [HBASE-2185] - Add html version of default hbase-site.xml
- [HBASE-2189] - HCM trashes meta cache even when not needed
- [HBASE-2190] - HRS should report to master when HMsg are available
- [HBASE-2198] - SingleColumnValueFilter should be able to find the column value even when it's not specifically added as input on the scan.
- [HBASE-2222] - Improve log "Trying to contact region server Some server for region , row 'ip_info_100,,1263329969690', but failed after 11 attempts."
- [HBASE-2230] - SingleColumnValueFilter has an ungaurded debug log message.
- [HBASE-2257] - [stargate] multiuser mode
- [HBASE-2262] - ZKW.ensureExists should check for existence
- [HBASE-2273] - [stargate] export metrics via Hadoop metrics, JMX, and ZooKeeper
- [HBASE-2277] - Update branch to hadoop 0.20.2
- [HBASE-2403] - [stargate] client HTable interface to REST connector
- [HBASE-2412] - [stargate] PerformanceEvaluation
- [HBASE-2419] - Remove from RS logs the fat NotServingRegionException stack
- [HBASE-2436] - [stargate] review Jersey and JSON dependencies
- [HBASE-2440] - Master UI should check against known bad JDK versions and warn the user
- [HBASE-2453] - Revisit compaction policies after HBASE-2248 commit
- [HBASE-2490] - Improve the javadoc of the client API for HTable.

1.4. New Feature

- [HBASE-2220] - Add a binary comparator that only compares up to the length of the supplied byte array

1.5. Task

- [HBASE-2360] - Make sure we have all the hadoop fixes in our our copy of its rpc
- [HBASE-2381] - missing copyright headers
- [HBASE-2383] - Replace JSON-licensed json dependencies
- [HBASE-2415] - Disable META splitting in 0.20
- [HBASE-2423] - Update 'Getting Started' for 0.20.4 including making "important configurations more visiable"
- [HBASE-2427] - Replace JSON-licensed json dependencies
- [HBASE-2446] - Remove 'indexed' contrib