



## Apache Kylin Release Notes

To download latest release, please visit: <http://kylin.apache.org/download/> (<http://kylin.apache.org/download/>), there are source code package, binary package, ODBC driver and installation guide available.

Any problem or issue, please report to Apache Kylin JIRA project: <https://issues.apache.org/jira/browse/KYLIN> (<https://issues.apache.org/jira/browse/KYLIN>)

or send to Apache Kylin mailing list:

- User relative: [user@kylin.apache.org](mailto:user@kylin.apache.org) (<mailto:user@kylin.apache.org>)
- Development relative: [dev@kylin.apache.org](mailto:dev@kylin.apache.org) (<mailto:dev@kylin.apache.org>)

### v2.0.0 - 2017-04-30

*Tag:* [kylin-2.0.0](https://github.com/apache/kylin/tree/kylin-2.0.0) (<https://github.com/apache/kylin/tree/kylin-2.0.0>)

This is a major release with **Spark Cubing**, **Snowflake Data Model** and runs **TPC-H Benchmark**. Check out the download (</download/>) and the how to upgrade guide ([/docs20/howto/howto\\_upgrade.html](/docs20/howto/howto_upgrade.html)).

#### New Feature

- [KYLIN-744] - Spark Cube Build Engine
- [KYLIN-2006] - Make job engine distributed and HA
- [KYLIN-2031] - New `Fix_length_Hex` encoding to support hash value and better Integer encoding to support negative value
- [KYLIN-2180] - Add project config and make config priority become "cube > project > server"
- [KYLIN-2240] - Add a toggle to ignore all cube signature inconsistency temporally
- [KYLIN-2317] - Hybrid Cube CLI Tools
- [KYLIN-2331] - By layer Spark cubing
- [KYLIN-2351] - Support Cloud DFS as `kylin.env.hdfs-working-dir`
- [KYLIN-2388] - Hot load kylin config from web
- [KYLIN-2394] - Upgrade Calcite to 1.11 and Avatica to 1.9
- [KYLIN-2396] - Percentile pre-aggregation implementation

#### Improvements

- [KYLIN-227] - Support "Pause" on Kylin Job
- [KYLIN-490] - Support multiple column distinct count
- [KYLIN-995] - Enable kylin to support joining the same lookup table more than once
- [KYLIN-1832] - HyperLogLog codec performance improvement
- [KYLIN-1875] - Snowflake schema support
- [KYLIN-1971] - Cannot support columns with same name under different table
- [KYLIN-2029] - lookup table support count(distinct column)
- [KYLIN-2030] - lookup table support group by primary key when no derived dimension
- [KYLIN-2096] - Support "select version()" SQL statement
- [KYLIN-2131] - Load Kafka client configuration from properties files
- [KYLIN-2133] - Check web server port availability when startup

- [KYLIN-2135] - Enlarge FactDistinctColumns reducer number
- [KYLIN-2136] - Enhance cubing algorithm selection
- [KYLIN-2141] - Add include/exclude interface for ResourceTool
- [KYLIN-2144] - move useful operation tools to org.apache.kylin.tool
- [KYLIN-2163] - Refine kylin scripts, less verbose during start up
- [KYLIN-2165] - Use hive table statistics data to get the total count
- [KYLIN-2169] - Refactor AbstractExecutable to respect KylinConfig
- [KYLIN-2170] - Mapper/Reducer cleanup() exception handling
- [KYLIN-2175] - cubestatsreader support reading unfinished segments
- [KYLIN-2181] - remove integer as fixed\_length in test\_kylin\_cube\_with\_slr\_empty desc
- [KYLIN-2187] - Enhance TableExt metadata
- [KYLIN-2192] - More Robust Global Dictionary
- [KYLIN-2193] - parameterise org.apache.kylin.storage.translate.DerivedFilterTranslator#IN\_THRESHOLD
- [KYLIN-2195] - Setup naming convention for kylin properties
- [KYLIN-2196] - Update Tomcat clas loader to parallel loader
- [KYLIN-2198] - Add a framework to allow major changes in DimensionEncoding
- [KYLIN-2205] - Use column name as the default dimension name
- [KYLIN-2215] - Refactor DimensionEncoding.encode(byte[]) to encode(String)
- [KYLIN-2217] - Reducers build dictionaries locally
- [KYLIN-2220] - Enforce same name between Cube & CubeDesc
- [KYLIN-2222] - web ui uses rest api to decide which dim encoding is valid for different typed columns
- [KYLIN-2227] - rename kylin-log4j.properties to kylin-tools-log4j.properties and move it to global conf folder
- [KYLIN-2238] - Add query server scan threshold
- [KYLIN-2244] - "kylin.job.cuboid.size.memhungry.ratio" shouldn't be applied on measures like TopN
- [KYLIN-2246] - redesign the way to decide layer cubing reducer count
- [KYLIN-2248] - TopN merge further optimization after KYLIN-1917
- [KYLIN-2252] - Enhance project/model/cube name check
- [KYLIN-2255] - Drop v1 CubeStorageQuery, Storage Engine ID=0
- [KYLIN-2263] - Display reasonable exception message if could not find kafka dependency for streaming build
- [KYLIN-2266] - Reduce memory usage for building global dict
- [KYLIN-2269] - Reduce MR memory usage for global dict
- [KYLIN-2280] - A easier way to change all the conflict ports when start multi kylin instance in the same server
- [KYLIN-2283] - Have a general purpose data generation tool
- [KYLIN-2287] - Speed up model and cube list load in Web
- [KYLIN-2290] - minor improvements on limit
- [KYLIN-2294] - Refactor CI, merge with\_slr and without\_slr cubes
- [KYLIN-2295] - Refactor CI, blend view cubes into the rest
- [KYLIN-2296] - Allow cube to override kafka configuration
- [KYLIN-2304] - Only copy latest version dict for global dict
- [KYLIN-2306] - Tolerate Class missing when loading job list
- [KYLIN-2307] - Make HBase 1.x the default of master
- [KYLIN-2308] - Allow user to set more columnFamily in web
- [KYLIN-2310] - Refactor CI, add IT for date/time encoding & extended column
- [KYLIN-2312] - Display Server Config/Environment by order in system tab
- [KYLIN-2314] - Add Integration Test (IT) for snowflake
- [KYLIN-2323] - Refine Table load/unload error message
- [KYLIN-2328] - Reduce the size of metadata uploaded to distributed cache
- [KYLIN-2338] - refactor BitmapCounter.DataInputByteBuffer
- [KYLIN-2349] - Serialize BitmapCounter with peekLength
- [KYLIN-2353] - Serialize BitmapCounter with distinct count
- [KYLIN-2358] - CuboidReducer has too many "if (aggrMask[i])" checks
- [KYLIN-2359] - Update job build step name
- [KYLIN-2364] - Output table name to error info in LookupTable
- [KYLIN-2375] - Default cache size (10M) is too small
- [KYLIN-2377] - Add kylin client query timeout
- [KYLIN-2378] - Set job thread name with job uuid
- [KYLIN-2379] - Add UseCMSInitiatingOccupancyOnly to KYLIN\_JVM\_SETTINGS

- [KYLIN-2380] - Refactor DbUnit assertions
- [KYLIN-2387] - A new BitmapCounter with better performance
- [KYLIN-2389] - Improve resource utilization for DistributedScheduler
- [KYLIN-2393] - Add "hive.auto.convert.join" and "hive.stats.autogather" to kylin\_hive\_conf.xml
- [KYLIN-2400] - Simplify Dictionary interface
- [KYLIN-2404] - Add "hive.merge.mapfiles" and "hive.merge.mapredfiles" to kylin\_hive\_conf.xml
- [KYLIN-2409] - Performance tuning for in-mem cubing
- [KYLIN-2411] - Kill MR job on pause
- [KYLIN-2414] - Distinguish UHC columns from normal columns in KYLIN-2217
- [KYLIN-2415] - Change back default metadata name to "kylin\_metadata"
- [KYLIN-2418] - Refactor pom.xml, drop unused parameter
- [KYLIN-2422] - NumberDictionary support for decimal with extra 0 after "."
- [KYLIN-2423] - Model should always include PK/FK as dimensions
- [KYLIN-2424] - Optimize the integration test's performance
- [KYLIN-2428] - Cleanup unnecessary shaded libraries for job/coprocessor/jdbc/server
- [KYLIN-2436] - add a configuration knob to disable spilling of aggregation cache
- [KYLIN-2437] - collect number of bytes scanned to query metrics
- [KYLIN-2438] - replace scan threshold with max scan bytes
- [KYLIN-2442] - Re-calculate expansion rate, count raw data size regardless of flat table compression
- [KYLIN-2443] - Report coprocessor error information back to client
- [KYLIN-2446] - Support project names filter in DeployCoprocessorCLI
- [KYLIN-2451] - Set HBASE\_RPC\_TIMEOUT according to kylin.storage.hbase.coprocessor-timeout-seconds
- [KYLIN-2489] - Upgrade zookeeper dependency to 3.4.8
- [KYLIN-2494] - Model has no dup column on dimensions and measures
- [KYLIN-2501] - Stream Aggregate GTRecords at Query Server
- [KYLIN-2503] - Spark cubing step should show YARN app link
- [KYLIN-2518] - Improve the sampling performance of FactDistinctColumns step
- [KYLIN-2525] - Smooth upgrade to 2.0.0 from older metadata
- [KYLIN-2527] - Speedup LookupStringTable, use HashMap instead of ConcurrentHashMap
- [KYLIN-2528] - refine job email notification to support starttls and customized port
- [KYLIN-2529] - Allow thread-local override of KylinConfig
- [KYLIN-2545] - Number2BytesConverter could tolerate malformed numbers
- [KYLIN-2560] - Fix license headers for 2.0.0 release

## Bugs

- [KYLIN-1603] - Building job still finished even MR job error happened.
- [KYLIN-1770] - Upgrade Calcite dependency (v1.10)
- [KYLIN-1793] - Job couldn't stop when hive commands got error with beeline
- [KYLIN-1945] - Cuboid.translateToValidCuboid method throw exception while cube building or query execute
- [KYLIN-2077] - Inconsistent cube desc signature for CubeDesc
- [KYLIN-2153] - Allow user to skip the check in CubeMetaIngester
- [KYLIN-2155] - get-properties.sh doesn't support parameters starting with "-n"
- [KYLIN-2166] - Unclosed HBaseAdmin in StorageCleanupJob#cleanUnusedHBaseTables
- [KYLIN-2172] - Potential NPE in ExecutableManager#updateJobOutput
- [KYLIN-2174] - partitoin column format visibility issue
- [KYLIN-2176] - org.apache.kylin.rest.service.JobService#submitJob will leave orphan NEW segment in cube when exception is met
- [KYLIN-2191] - Integer encoding error for width from 5 to 7
- [KYLIN-2197] - Has only base cuboid for some cube desc
- [KYLIN-2202] - Fix the conflict between KYLIN-1851 and KYLIN-2135
- [KYLIN-2207] - Ineffective null check in ExtendCubeToHybridCLI#createFromCube()
- [KYLIN-2208] - Unclosed FileReader in HiveCmdBuilder#build()
- [KYLIN-2209] - Potential NPE in StreamingController#deserializeTableDesc()
- [KYLIN-2211] - IDictionaryValueEnumerator should return String instead of byte[]
- [KYLIN-2212] - 'NOT' operator in filter on derived column may get incorrect result
- [KYLIN-2213] - UnsupportedOperationException when excute 'not like' query on cube v1
- [KYLIN-2216] - Potential NPE in model#findTable() call
- [KYLIN-2224] - "select \* from fact inner join lookup " does not return values for look up columns

- [KYLIN-2232] - cannot set partition date column pattern when edit a model
- [KYLIN-2236] - JDBC statement.setMaxRows(10) is not working
- [KYLIN-2237] - Ensure dimensions and measures of model don't have null column
- [KYLIN-2242] - Directly write hdfs file in reducer is dangerous
- [KYLIN-2243] - TopN memory estimation is inaccurate in some cases
- [KYLIN-2251] - JDBC Driver httpcore dependency conflict
- [KYLIN-2254] - A kind of sub-query does not work
- [KYLIN-2262] - Get "null" error when trigger a build with wrong cube name
- [KYLIN-2268] - Potential NPE in ModelDimensionDesc#init()
- [KYLIN-2271] - Purge cube may delete building segments
- [KYLIN-2275] - Remove dimensions cause wrong remove in advance settings
- [KYLIN-2277] - SELECT \* query returns a "COUNT\_\_" column, which is not expected
- [KYLIN-2282] - Step name "Build N-Dimension Cuboid Data : N-Dimension" is inaccurate
- [KYLIN-2284] - intersect\_count function error
- [KYLIN-2288] - Kylin treat empty string as error measure which is inconsistent with hive
- [KYLIN-2292] - workaround for CALCITE-1540
- [KYLIN-2297] - Manually edit cube segment start/end time will throw error in UI
- [KYLIN-2298] - timer component get wrong seconds
- [KYLIN-2300] - Show MapReduce waiting time for each build step
- [KYLIN-2301] - ERROR when executing query with subquery in "NOT IN" clause.
- [KYLIN-2305] - Unable to use long searchBase/Pattern for LDAP
- [KYLIN-2313] - Cannot find a cube in a subquery case with count distinct
- [KYLIN-2316] - Build Base Cuboid Data ERROR
- [KYLIN-2320] - TrieDictionaryForest incorrect getSizeOfId() when empty dictionary
- [KYLIN-2326] - ERROR: ArrayIndexOutOfBoundsException: -1
- [KYLIN-2329] - Between 0.06 - 0.01 and 0.06 + 0.01, returns incorrect result
- [KYLIN-2330] - CubeDesc returns redundant DerivedInfo
- [KYLIN-2337] - Remove expensive toString in SortedIteratorMergerWithLimit
- [KYLIN-2340] - Some subquery returns incorrect result
- [KYLIN-2341] - sum(case .. when ..) is not supported
- [KYLIN-2342] - When NoClassDefFoundError occurred in building cube, no error in kylin.log
- [KYLIN-2343] - When syn hive table, got error but actually the table is synced
- [KYLIN-2347] - TPC-H query 13, too many HLLC objects exceed memory budget
- [KYLIN-2348] - TPC-H query 20, requires multiple models in one query
- [KYLIN-2356] - Incorrect result when filter on numeric columns
- [KYLIN-2357] - Make ERROR\_RECORD\_LOG\_THRESHOLD configurable
- [KYLIN-2362] - Unify shell interpreter in scripts to avoid syntax diversity
- [KYLIN-2367] - raw query like select \* where ... returns empty columns
- [KYLIN-2376] - Upgrade checkstyle plugin
- [KYLIN-2382] - The column order of "select \*" is not as defined in the table
- [KYLIN-2383] - count distinct should not include NULL
- [KYLIN-2390] - Wrong argument order for WinAggResetContextImpl()
- [KYLIN-2391] - Unclosed FileInputStream in KylinConfig#getConfigAsString()
- [KYLIN-2395] - Lots of warning messages about failing to scan jars in kylin.out
- [KYLIN-2406] - TPC-H query 20, prevent NPE and give error hint
- [KYLIN-2407] - TPC-H query 20, routing bug in lookup query and cube query
- [KYLIN-2410] - Global dictionary does not respect the Hadoop configuration in mapper & reducer
- [KYLIN-2416] - Max LDAP password length is 15 chars
- [KYLIN-2419] - Rollback KYLIN-2292 workaround
- [KYLIN-2426] - Tests will fail if env not satisfy hardcoded path in ITHDFSResourceStoreTest
- [KYLIN-2429] - Variable initialized should be declared volatile in SparkCubingByLayer#execute()
- [KYLIN-2430] - Unnecessary exception catching in BulkLoadJob
- [KYLIN-2432] - Couldn't select partition column in some old browser (such as Google Chrome 18.0.1025.162)
- [KYLIN-2433] - Handle the column that all records is null in MergeCuboidMapper
- [KYLIN-2434] - Spark cubing does not respect config kylin.source.hive.database-for-flat-table
- [KYLIN-2440] - Query failed if join condition columns not appear on cube
- [KYLIN-2448] - Cloning a Model with a '-' in the name

- [KYLIN-2449] - Rewrite should not run on OLAPAggregateRel if has no OLAPTable
- [KYLIN-2452] - Throw NoSuchElementException when AggregationGroup size is 0
- [KYLIN-2454] - Data generation tool will fail if column name is hive reserved keyword
- [KYLIN-2457] - Should copy the latest dictionaries on dimension tables in a batch merge job
- [KYLIN-2462] - PK and FK both as dimensions causes save cube failure
- [KYLIN-2464] - Use ConcurrentMap instead of ConcurrentHashMap to avoid runtime errors
- [KYLIN-2465] - Web page still has "Streaming cube build is not supported on UI" statements
- [KYLIN-2474] - Build snapshot should check lookup PK uniqueness
- [KYLIN-2481] - NoRealizationFoundException when there are similar cubes and models
- [KYLIN-2487] - IN condition will convert to subquery join when its elements number exceeds 20
- [KYLIN-2490] - Couldn't get cube size on Azure HDInsight
- [KYLIN-2491] - Cube with error job can be dropped
- [KYLIN-2502] - "Create flat table" and "redistribute table" steps don't show YARN application link
- [KYLIN-2504] - Clone cube didn't keep the "engine\_type" property
- [KYLIN-2508] - Trans the time to UTC time when set the range of building cube
- [KYLIN-2510] - Unintended NPE in CubeMetaExtractor#requireProject()
- [KYLIN-2514] - Joins in data model fail to save when they disorder
- [KYLIN-2516] - a table field can not be used as both dimension and measure in kylin 2.0
- [KYLIN-2530] - Build cube failed with NoSuchElementException, hive table not found 'default.kylin\_intermediate\_xxxx'
- [KYLIN-2536] - Replace the use of org.codehaus.jackson
- [KYLIN-2537] - HBase Read/Write separation bug introduced by KYLIN-2351
- [KYLIN-2539] - Useless filter dimension will impact cuboid selection.
- [KYLIN-2541] - Beeline SQL not printed in logs
- [KYLIN-2543] - Still build dictionary for TopN group by column even using non-dict encoding
- [KYLIN-2555] - minor issues about acl and granted authority

## Tasks

- [KYLIN-1799] - Add a document to setup kylin on spark engine?
- [KYLIN-2293] - Refactor KylinConfig to remove test related code
- [KYLIN-2327] - Enable check-style for test code
- [KYLIN-2344] - Package spark into Kylin binary package
- [KYLIN-2368] - Enable Findbugs plugin
- [KYLIN-2386] - Revert KYLIN-2349 and KYLIN-2353
- [KYLIN-2521] - upgrade to calcite 1.12.0

## v1.6.0 - 2016-11-26

Tag: kylin-1.6.0 (<https://github.com/apache/kylin/tree/kylin-1.6.0>)

This is a major release with better support for using Apache Kafka as data source. Check how to upgrade ([/docs16/howto/howto\\_upgrade.html](/docs16/howto/howto_upgrade.html)) to do the upgrading.

## New Feature

- [KYLIN-1726] - Scalable streaming cubing
- [KYLIN-1919] - Support Embedded Structure when Parsing Streaming Message
- [KYLIN-2055] - Add an encoder for Boolean type
- [KYLIN-2067] - Add API to check and fill segment holes
- [KYLIN-2079] - add explicit configuration knob for coprocessor timeout
- [KYLIN-2088] - Support intersect count for calculation of retention or conversion rates
- [KYLIN-2125] - Support using beeline to load hive table metadata

## Bug

- [KYLIN-1565] - Read the kv max size from HBase config
- [KYLIN-1820] - Column autocomplete should remove the user input in model designer
- [KYLIN-1828] - java.lang.StringIndexOutOfBoundsException in org.apache.kylin.storage.hbase.util.StorageCleanupJob
- [KYLIN-1967] - Dictionary rounding can cause IllegalArgumentException in GTScanRangePlanner
- [KYLIN-1978] - kylin.sh compatible issue on Ubuntu
- [KYLIN-1990] - The SweetAlert at the front page may out of the page if the content is too long.

- [KYLIN-2007] - CUBOID\_CACHE is not cleared when rebuilding ALL cache
- [KYLIN-2012] - more robust approach to hive schema changes
- [KYLIN-2024] - kylin TopN only support the first measure
- [KYLIN-2027] - Error "connection timed out" occurs when zookeeper's port is set in hbase.zookeeper.quorum of hbase-site.xml
- [KYLIN-2028] - find-\*-dependency script fail on Mac OS
- [KYLIN-2035] - Auto Merge Submit Continuously
- [KYLIN-2041] - Wrong parameter definition in Get Hive Tables REST API
- [KYLIN-2043] - Rollback httpClient to 4.2.5 to align with Hadoop 2.6/2.7
- [KYLIN-2044] - Unclosed DataInputByteBuffer in BitmapCounter#peekLength
- [KYLIN-2045] - Wrong argument order in JobInstanceExtractor#executeExtract()
- [KYLIN-2047] - Ineffective null check in MetadataManager
- [KYLIN-2050] - Potentially ineffective call to close() in QueryCli
- [KYLIN-2051] - Potentially ineffective call to IOUtils.closeQuietly()
- [KYLIN-2052] - Edit "Top N" measure, the "group by" column wasn't displayed
- [KYLIN-2059] - Concurrent build issue in CubeManager.calculateToBeSegments()
- [KYLIN-2069] - NPE in LookupStringTable
- [KYLIN-2078] - Can't see generated SQL at Web UI
- [KYLIN-2084] - Unload sample table failed
- [KYLIN-2085] - PreparedStatement return incorrect result in some cases
- [KYLIN-2086] - Still report error when there is more than 12 dimensions in one agg group
- [KYLIN-2093] - Clear cache in CubeMetaIngester
- [KYLIN-2097] - Get "Column does not exist in row key desc" on cube has TopN measure
- [KYLIN-2099] - Import table error of sample table KYLIN\_CAL\_DT
- [KYLIN-2106] - UI bug - Advanced Settings - Rowkeys - new Integer dictionary encoding - could possibly impact also cube metadata
- [KYLIN-2109] - Deploy coprocessor only this server own the table
- [KYLIN-2110] - Ineffective comparison in BooleanDimEnc#equals()
- [KYLIN-2114] - WEB-Global-Dictionary bug fix and improve
- [KYLIN-2115] - some extended column query returns wrong answer
- [KYLIN-2116] - when hive field delimiter exists in table field values, fields order is wrong
- [KYLIN-2119] - Wrong chart value and sort when process scientific notation
- [KYLIN-2120] - kylin1.5.4.1 with cdh5.7 cube sql Oops Faild to take action
- [KYLIN-2121] - Failed to pull data to PowerBI or Excel on some query
- [KYLIN-2127] - UI bug fix for Extend Column
- [KYLIN-2130] - QueryMetrics concurrent bug fix
- [KYLIN-2132] - Unable to pull data from Kylin Cube ( learn\_kylin cube ) to Excel or Power BI for Visualization and some dimensions are not showing up.
- [KYLIN-2134] - Kylin will treat empty string as NULL by mistake
- [KYLIN-2137] - Failed to run mr job when user put a kafka jar in hive's lib folder
- [KYLIN-2138] - Unclosed ResultSet in BeelineHiveClient
- [KYLIN-2146] - "Streaming Cluster" page should remove "Margin" inputbox
- [KYLIN-2152] - TopN group by column does not distinguish between NULL and ""
- [KYLIN-2154] - source table rows will be skipped if TOPN's group column contains NULL values
- [KYLIN-2158] - Delete joint dimension not right
- [KYLIN-2159] - Redistribution Hive Table Step always requires row\_count filename as 000000\_0
- [KYLIN-2167] - FactDistinctColumnsReducer may get wrong max/min partition col value
- [KYLIN-2173] - push down limit leads to wrong answer when filter is loosened
- [KYLIN-2178] - CubeDescTest is unstable
- [KYLIN-2201] - Cube desc and aggregation group rule combination max check fail
- [KYLIN-2226] - Build Dimension Dictionary Error

## Improvement

- [KYLIN-1042] - Horizontal scalable solution for streaming cubing
- [KYLIN-1827] - Send mail notification when runtime exception throws during build/merge cube
- [KYLIN-1839] - improvement set classpath before submitting mr job
- [KYLIN-1917] - TopN counter merge performance improvement
- [KYLIN-1962] - Split kylin.properties into two files
- [KYLIN-1999] - Use some compression at UT/IT

- [KYLIN-2019] - Add license checker into checkstyle rule
- [KYLIN-2033] - Refactor broadcast of metadata change
- [KYLIN-2042] - QueryController puts entry in Cache w/o checking QueryCacheEnabled
- [KYLIN-2054] - TimedJsonStreamParser should support other time format
- [KYLIN-2068] - Import hive comment when sync tables
- [KYLIN-2070] - UI changes for allowing concurrent build/refresh/merge
- [KYLIN-2073] - Need timestamp info for diagnose
- [KYLIN-2075] - TopN measure: need select "constant" + "1" as the SUMORDER parameter
- [KYLIN-2076] - Improve sample cube and data
- [KYLIN-2080] - UI: allow multiple building jobs for the same cube
- [KYLIN-2082] - Support to change streaming configuration
- [KYLIN-2089] - Make update HBase coprocessor concurrent
- [KYLIN-2090] - Allow updating cube level config even the cube is ready
- [KYLIN-2091] - Add API to init the start-point (of each partition) for streaming cube
- [KYLIN-2095] - Hive mr job use overridden MR job configuration by cube properties
- [KYLIN-2098] - TopN support query UHC column without sorting by sum value
- [KYLIN-2100] - Allow cube to override HIVE job configuration by properties
- [KYLIN-2108] - Support usage of schema name "default" in SQL
- [KYLIN-2111] - only allow columns from Model dimensions when add group by column to TOP\_N
- [KYLIN-2112] - Allow a column be a dimension as well as "group by" column in TopN measure
- [KYLIN-2113] - Need sort by columns in SQLDigest
- [KYLIN-2118] - allow user view CubeInstance json even cube is ready
- [KYLIN-2122] - Move the partition offset calculation before submitting job
- [KYLIN-2126] - use column name as default dimension name when auto generate dimension for lookup table
- [KYLIN-2140] - rename packaged js with different name when build
- [KYLIN-2143] - allow more options from Extended Columns,COUNT\_DISTINCT,RAW\_TABLE
- [KYLIN-2162] - Improve the cube validation error message
- [KYLIN-2221] - rethink on KYLIN-1684
- [KYLIN-2083] - more RAM estimation test for MeasureAggregator and GTAggregateScanner
- [KYLIN-2105] - add QueryId
- [KYLIN-1321] - Add derived checkbox for lookup table columns on Auto Generate Dimensions panel
- [KYLIN-1995] - Upgrade MapReduce properties which are deprecated

### Task

- [KYLIN-2072] - Cleanup old streaming code
- [KYLIN-2081] - UI change to support embeded streaming message
- [KYLIN-2171] - Release 1.6.0

## v1.5.4.1 - 2016-09-28

Tag: kylin-1.5.4.1 (<https://github.com/apache/kylin/tree/kylin-1.5.4.1>)

This version fixes two major bugs introduced in 1.5.4; The metadata and HBase coprocessor is compatible with 1.5.4.

### Bug

- [KYLIN-2010] - Date dictionary return wrong SQL result
- [KYLIN-2026] - NPE occurs when build a cube without partition column
- [KYLIN-2032] - Cube build failed when partition column isn't in dimension list

## v1.5.4 - 2016-09-15

Tag: kylin-1.5.4 (<https://github.com/apache/kylin/tree/kylin-1.5.4>)

This version includes bug fixes/enhancements as well as new features; It is backward compatible with v1.5.3; While after upgrade, you still need update coprocessor, refer to How to update coprocessor (/docs15/howto/howto\_update\_coprocessor.html).

### New Feature

- [KYLIN-1732] - Support Window Function
- [KYLIN-1767] - UI for TopN: specify encoding and multiple "group by"

- [KYLIN-1849] - Search cube by name in Web UI
- [KYLIN-1908] - Collect Metrics to JMX
- [KYLIN-1921] - Support Grouping Functions
- [KYLIN-1964] - Add a companion tool of CubeMetaExtractor for cube importing

## Bug

- [KYLIN-962] - [UI] Cube Designer can't drag rowkey normally
- [KYLIN-1194] - Filter(CubeName) on Jobs/Monitor page works only once
- [KYLIN-1488] - When modifying a model, Save after deleting a lookup table. The internal error will pop up.
- [KYLIN-1760] - Save query hits org.apache.hadoop.hbase.TableNotFoundException: kylin\_metadata\_user
- [KYLIN-1808] - unload non existing table cause NPE
- [KYLIN-1834] - java.lang.IllegalArgumentException: Value not exists! - in Step 4 - Build Dimension Dictionary
- [KYLIN-1883] - Consensus Problem when running the tool, MetadataCleanupJob
- [KYLIN-1889] - Didn't deal with the failure of renaming folder in hdfs when running the tool CubeMigrationCLI
- [KYLIN-1929] - Error to load slow query in "Monitor" page for non-admin user
- [KYLIN-1933] - Deploy in cluster mode, the "query" node report "scheduler has not been started" every second
- [KYLIN-1934] - 'Value not exist' During Cube Merging Caused by Empty Dict
- [KYLIN-1939] - Linkage error while executing any queries
- [KYLIN-1942] - Models are missing after change project's name
- [KYLIN-1953] - Error handling for diagnosis
- [KYLIN-1956] - Can't query from child cube of a hybrid cube after its status changed from disabled to enabled
- [KYLIN-1961] - Project name is always constant instead of real project name in email notification
- [KYLIN-1970] - System Menu UI ACL issue
- [KYLIN-1972] - Access denied when query seek to hybrid
- [KYLIN-1973] - java.lang.NegativeArraySizeException when Build Dimension Dictionary
- [KYLIN-1982] - CubeMigrationCLI: associate model with project
- [KYLIN-1986] - CubeMigrationCLI: make global dictionary unique
- [KYLIN-1992] - Clear ThreadLocal Contexts when query failed before scanning HBase
- [KYLIN-1996] - Keep original column order when designing cube
- [KYLIN-1998] - Job engine lock is not release at shutdown
- [KYLIN-2003] - error start time at query result page
- [KYLIN-2005] - Move all storage side behavior hints to GTScanRequest

## Improvement

- [KYLIN-672] - Add Env and Project Info in job email notification
- [KYLIN-1702] - The Key of the Snapshot to the related lookup table may be not informative
- [KYLIN-1855] - Should exclude those joins in whose related lookup tables no dimensions are used in cube
- [KYLIN-1858] - Remove all InvertedIndex(Streaming purpose) related codes and tests
- [KYLIN-1866] - Add tip for field at 'Add Streaming' table page.
- [KYLIN-1867] - Upgrade dependency libraries
- [KYLIN-1874] - Make roaring bitmap version determined
- [KYLIN-1898] - Upgrade to Avatica 1.8 or higher
- [KYLIN-1904] - WebUI for GlobalDictionary
- [KYLIN-1906] - Add more comments and default value for kylin.properties
- [KYLIN-1910] - Support Separate HBase Cluster with NN HA and Kerberos Authentication
- [KYLIN-1920] - Add view CubeInstance json function
- [KYLIN-1922] - Improve the logic to decide whether to pre aggregate on Region server
- [KYLIN-1923] - Add access controller to query
- [KYLIN-1924] - Region server metrics: replace int type for long type for scanned row count
- [KYLIN-1925] - Do not allow cross project clone for cube
- [KYLIN-1926] - Loosen the constraint on FK-PK data type matching
- [KYLIN-1936] - Improve enable limit logic (exactAggregation is too strict)
- [KYLIN-1940] - Add owner for DataModel
- [KYLIN-1941] - Show submitter for slow query
- [KYLIN-1954] - BuildInFunctionTransformer should be executed per CubeSegmentScanner
- [KYLIN-1963] - Delegate the loading of certain package (like slf4j) to tomcat's parent classloader
- [KYLIN-1965] - Check duplicated measure name



- [KYLIN-1966] - Refactor IJoinedFlatTableDesc
- [KYLIN-1979] - Move hackNoGroupByAggregation to cube-based storage implementations
- [KYLIN-1984] - Don't use compression in packaging configuration
- [KYLIN-1985] - SnapshotTable should only keep the columns described in tableDesc
- [KYLIN-1997] - Add pivot feature back in query result page
- [KYLIN-2004] - Make the creating intermediate hive table steps configurable (two options)

## v1.5.3 - 2016-07-28

Tag: kylin-1.5.3 (<https://github.com/apache/kylin/tree/kylin-1.5.3>)

This version includes many bug fixes/enhancements as well as new features; It is backward compatible with v1.5.2; But after upgrade, you need to update coprocessor, refer to How to update coprocessor ([/docs15/howto/howto\\_update\\_coprocessor.html](/docs15/howto/howto_update_coprocessor.html)).

### New Feature

- [KYLIN-1478] - TopN measure should support non-dictionary encoding for ultra high cardinality
- [KYLIN-1693] - Support multiple group-by columns for TOP\_N measure
- [KYLIN-1752] - Add an option to fail cube build job when source table is empty
- [KYLIN-1756] - Allow user to run MR jobs against different Hadoop queues

### Bug

- [KYLIN-1499] - Couldn't save query, error in backend
- [KYLIN-1568] - Calculate row value buffer size instead of hard coded ROWVALUE\_BUFFER\_SIZE
- [KYLIN-1645] - Exception inside coprocessor should report back to the query thread
- [KYLIN-1646] - Column appeared twice if it was declared as both dimension and measure
- [KYLIN-1676] - High CPU in TrieDictionary due to incorrect use of HashMap
- [KYLIN-1679] - bin/get-properties.sh cannot get property which contains space or equals sign
- [KYLIN-1684] - query on table "kylin\_sales" return empty resultset after cube "kylin\_sales\_cube" which generated by sample.sh is ready
- [KYLIN-1694] - make multiply coefficient configurable when estimating cuboid size
- [KYLIN-1695] - Skip cardinality calculation job when loading hive table
- [KYLIN-1703] - The not-thread-safe ToolRunner.run() will cause concurrency issue in job engine
- [KYLIN-1704] - When load empty snapshot, NULL Pointer Exception occurs
- [KYLIN-1723] - GTAggregateScanner\$Dump.flush() must not write the WHOLE metrics buffer
- [KYLIN-1738] - MRJob Id is not saved to kylin jobs if MR job is killed
- [KYLIN-1742] - kylin.sh should always set KYLIN\_HOME to an absolute path
- [KYLIN-1755] - TopN Measure IndexOutOfBoundsException
- [KYLIN-1760] - Save query hits org.apache.hadoop.hbase.TableNotFoundException: kylin\_metadata\_user
- [KYLIN-1762] - Query threw NPE with 3 or more join conditions
- [KYLIN-1769] - There is no response when click "Property" button at Cube Designer
- [KYLIN-1777] - Streaming cube build shouldn't check working segment
- [KYLIN-1780] - Potential issue in SnapshotTable.equals()
- [KYLIN-1781] - kylin.properties encoding error while contain chinese prop key or value
- [KYLIN-1783] - Can't add override property at cube design 'Configuration Overwrites' step.
- [KYLIN-1785] - NoSuchElementException when Mandatory Dimensions contains all Dimensions
- [KYLIN-1787] - Properly deal with limit clause in CubeHBaseEndpointRPC (SELECT \* problem)
- [KYLIN-1788] - Allow arbitrary number of mandatory dimensions in one aggregation group
- [KYLIN-1789] - Couldn't use View as Lookup when join type is "inner"
- [KYLIN-1795] - bin/sample.sh doesn't work when configured hive client is beeline
- [KYLIN-1800] - IllegalArgumentException: Too many digits for NumberDictionary: -0.0099999999999877218. Expect 19 digits before decimal point at max.
- [KYLIN-1803] - ExtendedColumn Measure Encoding with Non-ascii Characters
- [KYLIN-1811] - Error step may be skipped sometimes when resume a cube job
- [KYLIN-1816] - More than one base KylinConfig exist in spring JVM
- [KYLIN-1817] - No result from JDBC with Date filter in prepareStatement
- [KYLIN-1838] - Fix sample cube definition
- [KYLIN-1848] - Can't sort cubes by any field in Web UI
- [KYLIN-1862] - "table not found" in "Build Dimension Dictionary" step

- [KYLIN-1879] - RestAPI /api/jobs always returns 0 for exec\_start\_time and exec\_end\_time fields
- [KYLIN-1882] - it report can't find the intermediate table in '#4 Step Name: Build Dimension Dictionary' when use hive view as lookup table
- [KYLIN-1896] - JDBC support mybatis
- [KYLIN-1905] - Wrong Default Date in Cube Build Web UI
- [KYLIN-1909] - Wrong access control to rest get cubes
- [KYLIN-1911] - NPE when extended column has NULL value
- [KYLIN-1912] - Create Intermediate Flat Hive Table failed when using beeline
- [KYLIN-1913] - query log printed abnormally if the query contains "\r" (not "\r\n" )
- [KYLIN-1918] - java.lang.UnsupportedOperationException when unload hive table

### Improvement

- [KYLIN-1319] - Find a better way to check hadoop job status
- [KYLIN-1379] - More stable and functional precise count distinct implements after KYLIN-1186
- [KYLIN-1656] - Improve performance of MRv2 engine by making each mapper handles a configured number of records
- [KYLIN-1657] - Add new configuration kylin.job.mapreduce.min.reducer.number
- [KYLIN-1669] - Deprecate the "Capacity" field from DataModel
- [KYLIN-1677] - Distribute source data by certain columns when creating flat table
- [KYLIN-1705] - Global (and more scalable) dictionary
- [KYLIN-1706] - Allow cube to override MR job configuration by properties
- [KYLIN-1714] - Make job/source/storage engines configurable from kylin.properties
- [KYLIN-1717] - Make job engine scheduler configurable
- [KYLIN-1718] - Grow ByteBuffer Dynamically in Cube Building and Query
- [KYLIN-1719] - Add config in scan request to control compress the query result or not
- [KYLIN-1724] - Support Amazon EMR
- [KYLIN-1725] - Use KylinConfig inside coprocessor
- [KYLIN-1728] - Introduce dictionary metadata
- [KYLIN-1731] - allow non-admin user to edit 'Advanced Setting' step in CubeDesigner
- [KYLIN-1747] - Calculate all 0 (except mandatory) cuboids
- [KYLIN-1749] - Allow mandatory only cuboid
- [KYLIN-1751] - Make kylin log configurable
- [KYLIN-1766] - CubeTupleConverter.translateResult() is slow due to date conversion
- [KYLIN-1775] - Add Cube Migrate Support for Global Dictionary
- [KYLIN-1782] - API redesign for CubeDesc
- [KYLIN-1786] - Frontend work for KYLIN-1313 (extended columns as measure)
- [KYLIN-1792] - behaviours for non-aggregated queries
- [KYLIN-1805] - It's easily got stuck when deleting HTables during running the StorageCleanupJob
- [KYLIN-1815] - Cleanup package size
- [KYLIN-1818] - change kafka dependency to provided
- [KYLIN-1821] - Reformat all of the java files and enable checkstyle to enforce code formatting
- [KYLIN-1823] - refactor kylin-server packaging
- [KYLIN-1846] - minimize dependencies of JDBC driver
- [KYLIN-1884] - Reload metadata automatically after migrating cube
- [KYLIN-1894] - GlobalDictionary may corrupt when server suddenly crash
- [KYLIN-1744] - Separate concepts of source offset and date range on cube segments
- [KYLIN-1654] - Upgrade httpClient dependency
- [KYLIN-1774] - Update Kylin's tomcat version to 7.0.69
- [KYLIN-1861] - Hive may fail to create flat table with "GC overhead error"

### v1.5.2.1 - 2016-06-07

Tag: kylin-1.5.2.1 (<https://github.com/apache/kylin/tree/kylin-1.5.2.1>)

This is a hot-fix version on v1.5.2, no new feature introduced, please upgrade to this version;

### Bug

- [KYLIN-1758] - createLookupHiveViewMaterializationStep will create intermediate table for fact table
- [KYLIN-1739] - kylin\_job\_conf\_inmem.xml can impact non-inmem MR job

## v1.5.2 - 2016-05-26

Tag: kylin-1.5.2 (<https://github.com/apache/kylin/tree/kylin-1.5.2>)

This version is backward compatible with v1.5.1. But after upgrade to v1.5.2 from v1.5.1, you need to update coprocessor, refer to [How to update coprocessor \(/docs15/howto/howto\\_update\\_coprocessor.html\)](/docs15/howto/howto_update_coprocessor.html).

### Highlights

- [KYLIN-1077] - Support Hive View as Lookup Table
- [KYLIN-1515] - Make Kylin run on MapR
- [KYLIN-1600] - Download diagnosis zip from GUI
- [KYLIN-1672] - support kylin on cdh 5.7

### New Feature

- [KYLIN-1016] - Count distinct on any dimension should work even not a predefined measure
- [KYLIN-1077] - Support Hive View as Lookup Table
- [KYLIN-1441] - Display time column as partition column
- [KYLIN-1515] - Make Kylin run on MapR
- [KYLIN-1600] - Download diagnosis zip from GUI
- [KYLIN-1672] - support kylin on cdh 5.7

### Improvement

- [KYLIN-869] - Enhance mail notification
- [KYLIN-955] - HiveColumnCardinalityJob should use configurations in conf/kylin\_job\_conf.xml
- [KYLIN-1313] - Enable deriving dimensions on non PK/FK
- [KYLIN-1323] - Improve performance of converting data to hfile
- [KYLIN-1340] - Tools to extract all cube/hybrid/project related metadata to facilitate diagnosing/debugging/\* sharing
- [KYLIN-1381] - change RealizationCapacity from three profiles to specific numbers
- [KYLIN-1391] - quicker and better response to v2 storage engine' s rpc timeout exception
- [KYLIN-1418] - Memory hungry cube should select LAYER and INMEM cubing smartly
- [KYLIN-1432] - For GUI, to add one option "yyyy-MM-dd HH:MM:ss" for Partition Date Column
- [KYLIN-1453] - cuboid sharding based on specific column
- [KYLIN-1487] - attach a hyperlink to introduce new aggregation group
- [KYLIN-1526] - Move query cache back to query controller level
- [KYLIN-1542] - Hfile owner is not hbase
- [KYLIN-1544] - Make hbase encoding and block size configurable just like hbase compression
- [KYLIN-1561] - Refactor storage engine(v2) to be extension friendly
- [KYLIN-1566] - Add and use a separate kylin\_job\_conf.xml for in-mem cubing
- [KYLIN-1567] - Front-end work for KYLIN-1557
- [KYLIN-1578] - Coprocessor thread voluntarily stop itself when it reaches timeout
- [KYLIN-1579] - IT preparation classes like BuildCubeWithEngine should exit with status code upon build \* exception
- [KYLIN-1580] - Use 1 byte instead of 8 bytes as column indicator in fact distinct MR job
- [KYLIN-1584] - Specify region cut size in cubedesc and leave the RealizationCapacity in model as a hint
- [KYLIN-1585] - make MAX\_HBASE\_FUZZY\_KEYS in GTScanRangePlanner configurable
- [KYLIN-1587] - show cube level configuration overwrites properties in CubeDesigner
- [KYLIN-1591] - enabling different block size setting for small column families
- [KYLIN-1599] - Add "isShardBy" flag in rowkey panel
- [KYLIN-1601] - Need not to shrink scan cache when hbase rows can be large
- [KYLIN-1602] - User could dump hbase usage for diagnosis
- [KYLIN-1614] - Bring more information in diagnosis tool
- [KYLIN-1621] - Use deflate level 1 to enable compression "on the fly"
- [KYLIN-1623] - Make the hll precision for data sampling configurable
- [KYLIN-1624] - HyperLogLogPlusCounter will become inaccurate when there' re billions of entries
- [KYLIN-1625] - GC log overwrites old one after restart Kylin service
- [KYLIN-1627] - add backdoor toggle to dump binary cube storage response for further analysis
- [KYLIN-1731] - allow non-admin user to edit 'Advanced Setting' step in CubeDesigner

### Bug

- [KYLIN-989] - column width is too narrow for timestamp field
- [KYLIN-1197] - cube data not updated after purge
- [KYLIN-1305] - Can not get more than one system admin email in config
- [KYLIN-1551] - Should check and ensure TopN measure has two parameters specified
- [KYLIN-1563] - Unsafe check of initiated in HybridInstance#init()
- [KYLIN-1569] - Select any column when adding a custom aggregation in GUI
- [KYLIN-1574] - Unclosed ResultSet in QueryService#getMetadata()
- [KYLIN-1581] - NPE in Job engine when execute MR job
- [KYLIN-1593] - Agg group info will be blank when trying to edit cube
- [KYLIN-1595] - columns in metric could also be in filter/groupby
- [KYLIN-1596] - UT fail, due to String encoding CharSetEncoder mismatch
- [KYLIN-1598] - cannot run complete UT at windows dev machine
- [KYLIN-1604] - Concurrent write issue on hdfs when deploy coprocessor
- [KYLIN-1612] - Cube is ready but insight tables not result
- [KYLIN-1615] - UT 'HiveCmdBuilderTest' fail on 'testBeeline'
- [KYLIN-1619] - Can't find any realization caused by Top-N measure
- [KYLIN-1622] - sql not executed and report topN error
- [KYLIN-1631] - Web UI of TopN, "group by" column couldn't be a dimension column
- [KYLIN-1634] - Unclosed OutputStream in SSHClient#scpFileToLocal()
- [KYLIN-1637] - Sample cube build error
- [KYLIN-1638] - Unclosed HBaseAdmin in ToolUtil#getHBaseMetaStoreId()
- [KYLIN-1639] - Wrong logging of JobID in MapReduceExecutable.java
- [KYLIN-1643] - Kylin's hll counter count "NULL" as a value
- [KYLIN-1647] - Purge a cube, and then build again, the start date is not updated
- [KYLIN-1650] - java.io.IOException: Filesystem closed - in Cube Build Step 2 (MapR)
- [KYLIN-1655] - function name 'getKylinPropertiesAsInputSteam' misspelt
- [KYLIN-1660] - Streaming/kafka config not match with table name
- [KYLIN-1662] - tableName got truncated during request mapping for /tables/tableName
- [KYLIN-1666] - Should check project selection before add a stream table
- [KYLIN-1667] - Streaming table name should allow enter "DB.TABLE" format
- [KYLIN-1673] - make sure metadata in 1.5.2 compatible with 1.5.1
- [KYLIN-1678] - MetaData clean just clean FINISHED and DISCARD jobs, but job correct status is SUCCEED
- [KYLIN-1685] - error happens while execute a sql contains '?' using Statement
- [KYLIN-1688] - Illegal char on result dataset table
- [KYLIN-1721] - KylinConfigExt lost base properties when store into file
- [KYLIN-1722] - IntegerDimEnc serialization exception inside coprocessor

## v1.5.1 - 2016-04-13

Tag: kylin-1.5.1 (<https://github.com/apache/kylin/tree/kylin-1.5.1>)

This version is backward compatible with v1.5.0. But after upgrade to v1.5.1 from v1.5.0, you need to update coprocessor, refer to [How to update coprocessor \(/docs15/howto/howto\\_update\\_coprocessor.html\)](#).

### Highlights

- [KYLIN-1122] - Kylin support detail data query from fact table
- [KYLIN-1492] - Custom dimension encoding
- [KYLIN-1495] - Metadata upgrade from 1.0~1.3 to 1.5, including metadata correction, relevant tools, etc.
- [KYLIN-1534] - Cube specific config, override global kylin.properties
- [KYLIN-1546] - Tool to dump information for diagnosis

### New Feature

- [KYLIN-1122] - Kylin support detail data query from fact table
- [KYLIN-1378] - Add UI for TopN measure
- [KYLIN-1492] - Custom dimension encoding
- [KYLIN-1495] - Metadata upgrade from 1.0~1.3 to 1.5, including metadata correction, relevant tools, etc.
- [KYLIN-1501] - Run some classes at the beginning of kylin server startup
- [KYLIN-1503] - Print version information with kylin.sh

- [KYLIN-1531] - Add smoke test scripts
- [KYLIN-1534] - Cube specific config, override global kylin.properties
- [KYLIN-1540] - REST API for deleting segment
- [KYLIN-1541] - IntegerDimEnc, custom dimension encoding for integers
- [KYLIN-1546] - Tool to dump information for diagnosis
- [KYLIN-1550] - Persist some recent bad query

### Improvement

- [KYLIN-1490] - Use InstallShield 2015 to generate ODBC Driver setup files
- [KYLIN-1498] - cube desc signature not calculated correctly
- [KYLIN-1500] - streaming\_fillgap cause out of memory
- [KYLIN-1502] - When cube is not empty, only signature consistent cube desc updates are allowed
- [KYLIN-1504] - Use NavigableSet to store rowkey and use prefix filter to check resource path prefix instead String comparison on tomcat side
- [KYLIN-1505] - Combine guava filters with Predicates.and
- [KYLIN-1543] - GTFilterScanner performance tuning
- [KYLIN-1557] - Enhance the check on aggregation group dimension number

### Bug

- [KYLIN-1373] - need to encode export query url to get right result in query page
- [KYLIN-1434] - Kylin Job Monitor API: /kylin/api/jobs is too slow in large kylin deployment
- [KYLIN-1472] - Export csv get error when there is a plus sign in the sql
- [KYLIN-1486] - java.lang.IllegalArgumentException: Too many digits for NumberDictionary
- [KYLIN-1491] - Should return base cuboid as valid cuboid if no aggregation group matches
- [KYLIN-1493] - make ExecutableManager.getInstance thread safe
- [KYLIN-1497] - Make three .getInstance thread safe
- [KYLIN-1507] - Couldn't find hive dependency jar on some platform like CDH
- [KYLIN-1513] - Time partitioning doesn't work across multiple days
- [KYLIN-1514] - MD5 validation of Tomcat does not work when package tar
- [KYLIN-1521] - Couldn't refresh a cube segment whose start time is before 1970-01-01
- [KYLIN-1522] - HLLC is incorrect when result is feed from cache
- [KYLIN-1524] - Get "java.lang.Double cannot be cast to java.lang.Long" error when Top-N metris data type is BigInt
- [KYLIN-1527] - Columns with all NULL values can't be queried
- [KYLIN-1537] - Failed to create flat hive table, when name is too long
- [KYLIN-1538] - DoubleDeltaSerializer cause obvious error after deserialize and serialize
- [KYLIN-1553] - Cannot find rowkey column "COL\_NAME" in cube CubeDesc
- [KYLIN-1564] - Unclosed table in BuildCubeWithEngine#checkHFilesInHBase()
- [KYLIN-1569] - Select any column when adding a custom aggregation in GUI

## v1.5.0 - 2016-03-12

Tag: kylin-1.5.0 (<https://github.com/apache/kylin/tree/kylin-1.5.0>)

**This version is not backward compatible.** The format of cube and metadata has been refactored in order to get times of performance improvement. We recommend this version, but does not suggest upgrade from previous deployment directly. A clean and new deployment of this version is strongly recommended. If you have to upgrade from previous deployment, an upgrade guide will be provided by community later.

### Highlights

- [KYLIN-875] - A plugin-able architecture, to allow alternative cube engine / storage engine / data source.
- [KYLIN-1245] - A better MR cubing algorithm, about 1.5 times faster by comparing hundreds of jobs.
- [KYLIN-942] - A better storage engine, makes query roughly 2 times faster (especially for slow queries) by comparing tens of thousands sqls.
- [KYLIN-738] - Streaming cubing EXPERIMENTAL support, source from kafka, build cube in-mem at minutes interval.
- [KYLIN-242] - Redesign aggregation group, support of 20+ dimensions made easy.
- [KYLIN-976] - Custom aggregation types (or UDF in other words).
- [KYLIN-943] - TopN aggregation type.
- [KYLIN-1065] - ODBC compatible with Tableau 9.1, MS Excel, MS PowerBI.

- [KYLIN-1219] - Kylin support SSO with Spring SAML.

## New Feature

- [KYLIN-528] - Build job flow for Inverted Index building
- [KYLIN-579] - Unload table from Kylin
- [KYLIN-596] - Support Excel and Power BI
- [KYLIN-599] - Near real-time support
- [KYLIN-607] - More efficient cube building
- [KYLIN-609] - Add Hybrid as a federation of Cube and Inverted-index realization
- [KYLIN-625] - Create GridTable, a data structure that abstracts vertical and horizontal partition of a table
- [KYLIN-728] - IGTStore implementation which use disk when memory runs short
- [KYLIN-738] - StreamingOLAP
- [KYLIN-749] - support timestamp type in II and cube
- [KYLIN-774] - Automatically merge cube segments
- [KYLIN-868] - add a metadata backup/restore script in bin folder
- [KYLIN-886] - Data Retention for streaming data
- [KYLIN-906] - cube retention
- [KYLIN-943] - Approximate TopN supported by Cube
- [KYLIN-986] - Generalize Streaming scripts and put them into code repository
- [KYLIN-1219] - Kylin support SSO with Spring SAML
- [KYLIN-1277] - Upgrade tool to put old-version cube and new-version cube into a hybrid model
- [KYLIN-1458] - Checking the consistency of cube segment host with the environment after cube migration
- [KYLIN-976] - Support Custom Aggregation Types
- [KYLIN-1054] - Support Hive client Beeline
- [KYLIN-1128] - Clone Cube Metadata
- [KYLIN-1186] - Support precise Count Distinct using bitmap (under limited conditions)
- [KYLIN-1458] - Checking the consistency of cube segment host with the environment after cube migration
- [KYLIN-1483] - Command tool to visualize all cuboids in a cube/segment

## Improvement

- [KYLIN-225] - Support edit "cost" of cube
- [KYLIN-410] - table schema not expand when clicking the database text
- [KYLIN-589] - Cleanup Intermediate hive table after cube build
- [KYLIN-623] - update Kylin UI Style to latest AdminLTE
- [KYLIN-633] - Support Timestamp for cube partition
- [KYLIN-649] - move the cache layer from service tier back to storage tier
- [KYLIN-655] - Migrate cube storage (query side) to use GridTable API
- [KYLIN-663] - Push time condition down to ii endpoint
- [KYLIN-668] - Out of memory in mapper when building cube in mem
- [KYLIN-671] - Implement fine grained cache for cube and ii
- [KYLIN-674] - IIEndpoint return metrics as well
- [KYLIN-675] - cube&model designer refactor
- [KYLIN-678] - optimize RowKeyColumnIO
- [KYLIN-697] - Reorganize all test cases to unit test and integration tests
- [KYLIN-702] - When Kylin create the flat hive table, it generates large number of small files in HDFS
- [KYLIN-708] - replace BitSet for AggrKey
- [KYLIN-712] - some enhancement after code review
- [KYLIN-717] - optimize OLAPEnumerator.convertCurrentRow()
- [KYLIN-718] - replace aliasMap in storage context with a clear specified return column list
- [KYLIN-719] - bundle statistics info in endpoint response
- [KYLIN-720] - Optimize endpoint' s response structure to suit with no-dictionary data
- [KYLIN-721] - streaming cli support third-party streammessage parser
- [KYLIN-726] - add remote cli port configuration for KylinConfig
- [KYLIN-729] - IIEndpoint eliminate the non-aggregate routine
- [KYLIN-734] - Push cache layer to each storage engine
- [KYLIN-752] - Improved IN clause performance

- [KYLIN-753] - Make the dependency on hbase-common to "provided"
- [KYLIN-755] - extract copying libs from prepare.sh so that it can be reused
- [KYLIN-760] - Improve the hasing performance in Sampling cuboid size
- [KYLIN-772] - Continue cube job when hive query return empty resultset
- [KYLIN-773] - performance is slow list jobs
- [KYLIN-783] - update hdp version in test cases to 2.2.4
- [KYLIN-796] - Add REST API to trigger storage cleanup/GC
- [KYLIN-809] - Streaming cubing allow multiple kafka clusters/topics
- [KYLIN-816] - Allow gap in cube segments, for streaming case
- [KYLIN-822] - list cube overview in one page
- [KYLIN-823] - replace fk on fact table on rowkey & aggregation group generate
- [KYLIN-838] - improve performance of job query
- [KYLIN-844] - add backdoor toggles to control query behavior
- [KYLIN-845] - Enable coprocessor even when there is memory hungry distinct count
- [KYLIN-858] - add snappy compression support
- [KYLIN-866] - Confirm with user when he selects empty segments to merge
- [KYLIN-869] - Enhance mail notification
- [KYLIN-870] - Speed up hbase segments info by caching
- [KYLIN-871] - growing dictionary for streaming case
- [KYLIN-874] - script for fill streaming gap automatically
- [KYLIN-875] - Decouple with Hadoop to allow alternative Input / Build Engine / Storage
- [KYLIN-879] - add a tool to collect orphan hbases
- [KYLIN-880] - Kylin should change the default folder from /tmp to user configurable destination
- [KYLIN-881] - Upgrade Calcite to 1.3.0
- [KYLIN-882] - check access to kylin.hdfs.working.dir
- [KYLIN-883] - Using configurable option for Hive intermediate tables created by Kylin job
- [KYLIN-893] - Remove the dependency on quartz and metrics
- [KYLIN-895] - Add "retention\_range" attribute for cube instance, and automatically drop the oldest segment when exceeds retention
- [KYLIN-896] - Clean ODBC code, add them into main repository and write docs to help compiling
- [KYLIN-901] - Add tool for cleanup Kylin metadata storage
- [KYLIN-902] - move streaming related parameters into StreamingConfig
- [KYLIN-909] - Adapt GTStore to hbase endpoint
- [KYLIN-919] - more friendly UI for 0.8
- [KYLIN-922] - Enforce same code style for both intellij and eclipse user
- [KYLIN-926] - Make sure Kylin leaves no garbage files in local OS and HDFS/HBASE
- [KYLIN-927] - Real time cubes merging skipping gaps
- [KYLIN-933] - friendly UI to use data model
- [KYLIN-938] - add friendly tip to page when rest request failed
- [KYLIN-942] - Cube parallel scan on Hbase
- [KYLIN-956] - Allow users to configure hbase compression algorithm in kylin.properties
- [KYLIN-957] - Support HBase in a separate cluster
- [KYLIN-960] - Split storage module to core-storage and storage-hbase
- [KYLIN-973] - add a tool to analyse streaming output logs
- [KYLIN-984] - Behavior change in streaming data consuming
- [KYLIN-987] - Rename 0.7-staging and 0.8 branch
- [KYLIN-1014] - Support kerberos authentication while getting status from RM
- [KYLIN-1018] - make TimedJsonStreamParser default parser
- [KYLIN-1019] - Remove v1 cube model classes from code repository
- [KYLIN-1021] - upload dependent jars of kylin to HDFS and set tmpjars
- [KYLIN-1025] - Save cube change is very slow
- [KYLIN-1036] - Code Clean, remove code which never used at front end
- [KYLIN-1041] - ADD Streaming UI
- [KYLIN-1048] - CPU and memory killer in Cuboid.findById()
- [KYLIN-1058] - Remove "right join" during model creation
- [KYLIN-1061] - "kylin.sh start" should check whether kylin has already been running
- [KYLIN-1064] - restore disabled queries in KylinQueryTest.testVerifyQuery
- [KYLIN-1065] - ODBC driver support tableau 9.1

- [KYLIN-1068] - Optimize the memory footprint for TopN counter
- [KYLIN-1069] - update tip for 'Partition Column' on UI
- [KYLIN-1074] - Load hive tables with selecting mode
- [KYLIN-1095] - Update AdminLTE to latest version
- [KYLIN-1096] - Deprecate minicluster
- [KYLIN-1099] - Support dictionary of cardinality over 10 millions
- [KYLIN-1101] - Allow "YYYYMMDD" as a date partition column
- [KYLIN-1105] - Cache in AbstractRowKeyEncoder.createInstance() is useless
- [KYLIN-1116] - Use local dictionary for InvertedIndex batch building
- [KYLIN-1119] - refine find-hive-dependency.sh to correctly get hcatalog path
- [KYLIN-1126] - v2 storage(for parallel scan) backward compatibility with v1 storage
- [KYLIN-1135] - Pscan use share thread pool
- [KYLIN-1136] - Distinguish fast build mode and complete build mode
- [KYLIN-1139] - Hive job not starting due to error "conflicting lock present for default mode EXCLUSIVE "
- [KYLIN-1149] - When yarn return an incomplete job tracking URL, Kylin will fail to get job status
- [KYLIN-1154] - Load job page is very slow when there are a lot of history job
- [KYLIN-1157] - CubeMigrationCLI doesn't copy ACL
- [KYLIN-1160] - Set default logger appender of log4j for JDBC
- [KYLIN-1161] - Rest API /api/cubes?cubeName= is doing fuzzy match instead of exact match
- [KYLIN-1162] - Enhance HadoopStatusGetter to be compatible with YARN-2605
- [KYLIN-1190] - Make memory budget per query configurable
- [KYLIN-1211] - Add 'Enable Cache' button in System page
- [KYLIN-1234] - Cube ACL does not work
- [KYLIN-1235] - allow user to select dimension column as options when edit COUNT\_DISTINCT measure
- [KYLIN-1237] - Revisit on cube size estimation
- [KYLIN-1239] - attribute each htable with team contact and owner name
- [KYLIN-1244] - In query window, enable fast copy&paste by double clicking tables/columns' names.
- [KYLIN-1245] - Switch between layer cubing and in-mem cubing according to stats
- [KYLIN-1246] - get cubes API update - offset,limit not required
- [KYLIN-1251] - add toggle event for tree label
- [KYLIN-1259] - Change font/background color of job progress
- [KYLIN-1265] - Make sure 1.4-rc query is no slower than 1.0
- [KYLIN-1266] - Tune release package size
- [KYLIN-1267] - Check Kryo performance when spilling aggregation cache
- [KYLIN-1268] - Fix 2 kylin logs
- [KYLIN-1270] - improve TimedJsonStreamParser to support month\_start,quarter\_start,year\_start
- [KYLIN-1281] - Add "partition\_date\_end" , and move "partition\_date\_start" into cube descriptor
- [KYLIN-1283] - Replace GTScanRequest's SerDer form Kryo to manual
- [KYLIN-1287] - UI update for streaming build action
- [KYLIN-1297] - Diagnose query performance issues in 1.4 branch
- [KYLIN-1301] - fix segment pruning failure
- [KYLIN-1308] - query storage v2 enable parallel cube visiting
- [KYLIN-1312] - Enhance DeployCoprocesorCLI to support Cube level filter
- [KYLIN-1317] - Kill underlying running hadoop job while discard a job
- [KYLIN-1318] - enable gc log for kylin server instance
- [KYLIN-1323] - Improve performance of converting data to hfile
- [KYLIN-1327] - Tool for batch updating host information of htables
- [KYLIN-1333] - Kylin Entity Permission Control
- [KYLIN-1334] - allow truncating string for fixed length dimensions
- [KYLIN-1341] - Display JSON of Data Model in the dialog
- [KYLIN-1350] - hbase Result.binarySearch is found to be problematic in concurrent environments
- [KYLIN-1365] - Kylin ACL enhancement
- [KYLIN-1368] - JDBC Driver is not generic to restAPI json result
- [KYLIN-1424] - Should support multiple selection in picking up dimension/measure column step in data model wizard
- [KYLIN-1438] - auto generate aggregation group
- [KYLIN-1474] - expose list, remove and cat in metastore.sh
- [KYLIN-1475] - Inject ehcache manager for any test case that will touch ehcache manager



- [KYLIN-242] - Redesign aggregation group
- [KYLIN-770] - optimize memory usage for GTSimpleMemStore GTAggregationScanner
- [KYLIN-955] - HiveColumnCardinalityJob should use configurations in conf/kylin\_job\_conf.xml
- [KYLIN-980] - FactDistinctColumnsJob to support high cardinality columns
- [KYLIN-1079] - Manager large number of entries in metadata store
- [KYLIN-1082] - Hive dependencies should be add to tmpjars
- [KYLIN-1201] - Enhance project level ACL
- [KYLIN-1222] - restore testing v1 query engine in case need it as a fallback for v2
- [KYLIN-1232] - Refine ODBC Connection UI
- [KYLIN-1237] - Revisit on cube size estimation
- [KYLIN-1239] - attribute each htable with team contact and owner name
- [KYLIN-1245] - Switch between layer cubing and in-mem cubing according to stats
- [KYLIN-1265] - Make sure 1.4-rc query is no slower than 1.0
- [KYLIN-1266] - Tune release package size
- [KYLIN-1270] - improve TimedJsonStreamParser to support month\_start,quarter\_start,year\_start
- [KYLIN-1283] - Replace GTScanRequest' s SerDer form Kryo to manual
- [KYLIN-1297] - Diagnose query performance issues in 1.4 branch
- [KYLIN-1301] - fix segment pruning failure
- [KYLIN-1308] - query storage v2 enable parallel cube visiting
- [KYLIN-1318] - enable gc log for kylin server instance
- [KYLIN-1327] - Tool for batch updating host information of htables
- [KYLIN-1343] - Upgrade calcite version to 1.6
- [KYLIN-1350] - hbase Result.binarySearch is found to be problematic in concurrent environments
- [KYLIN-1366] - Bind metadata version with release version
- [KYLIN-1389] - Formatting ODBC Drive C++ code
- [KYLIN-1405] - Aggregation group validation
- [KYLIN-1465] - Beautify kylin log to convenience both production trouble shooting and CI debugging
- [KYLIN-1475] - Inject ehcache manager for any test case that will touch ehcache manager

## Bug

- [KYLIN-404] - Can' t get cube source record size.
- [KYLIN-457] - log4j error and dup lines in kylin.log
- [KYLIN-521] - No verification even if join condition is invalid
- [KYLIN-632] - "kylin.sh stop" doesn' t check whether KYLIN\_HOME was set
- [KYLIN-635] - IN clause within CASE when is not working
- [KYLIN-656] - REST API get cube desc NullPointerException when cube is not exists
- [KYLIN-660] - Make configurable of dictionary cardinality cap
- [KYLIN-665] - buffer error while in mem cubing
- [KYLIN-688] - possible memory leak for segmentIterator
- [KYLIN-731] - Parallel stream build will throw OOM
- [KYLIN-740] - Slowness with many IN() values
- [KYLIN-747] - bad query performance when IN clause contains a value doesn' t exist in the dictionary
- [KYLIN-748] - II returned result not correct when decimal omits precision and scal
- [KYLIN-751] - Max on negative double values is not working
- [KYLIN-766] - round BigDecimal according to the DataType scale
- [KYLIN-769] - empty segment build fail due to no dictionary
- [KYLIN-771] - query cache is not evicted when metadata changes
- [KYLIN-778] - can' t build cube after package to binary
- [KYLIN-780] - Upgrade Calcite to 1.0
- [KYLIN-797] - Cuboid cache will cache massive invalid cuboid if existed many cubes which already be deleted
- [KYLIN-801] - fix remaining issues on query cache and storage cache
- [KYLIN-805] - Drop useless Hive intermediate table and HBase tables in the last step of cube build/merge
- [KYLIN-807] - Avoid write conflict between job engine and stream cube builder
- [KYLIN-817] - Support Extract() on timestamp column
- [KYLIN-824] - Cube Build fails if lookup table doesn' t have any files under HDFS location
- [KYLIN-828] - kylin still use ldap profile when comment the line "kylin.sandbox=false" in kylin.properties
- [KYLIN-834] - optimize StreamingUtil binary search perf

- [KYLIN-837] - fix submit build type when refresh cube
- [KYLIN-873] - cancel button does not work when [resume][discard] job
- [KYLIN-889] - Support more than one HDFS files of lookup table
- [KYLIN-897] - Update CubeMigrationCLI to copy data model info
- [KYLIN-898] - "CUBOID\_CACHE" in Cuboid.java never flushes
- [KYLIN-905] - Boolean type not supported
- [KYLIN-911] - NEW segments not DELETED when cancel BuildAndMerge Job
- [KYLIN-912] - \$KYLIN\_HOME/tomcat/temp folder takes much disk space after long run
- [KYLIN-913] - Cannot find rowkey column XXX in cube CubeDesc
- [KYLIN-914] - Scripts shebang should use /bin/bash
- [KYLIN-918] - Calcite throws "java.lang.Float cannot be cast to java.lang.Double" error while executing SQL
- [KYLIN-929] - can not sort cubes by [Source Records] at cubes list page
- [KYLIN-930] - can't see realizations under each project at project list page
- [KYLIN-934] - Negative number in SUM result and Kylin results not matching exactly Hive results
- [KYLIN-935] - always loading when try to view the log of the sub-step of cube build job
- [KYLIN-936] - can not see job step log
- [KYLIN-944] - update doc about how to consume kylin API in javascript
- [KYLIN-946] - [UI] refresh page show no results when Project selected as [-Select All-]
- [KYLIN-950] - Web UI "Jobs" tab view the job reduplicated
- [KYLIN-951] - Drop RowBlock concept from GridTable general API
- [KYLIN-952] - User can trigger a Refresh job on an non-existing cube segment via REST API
- [KYLIN-967] - Dump running queries on memory shortage
- [KYLIN-975] - change kylin.job.hive.database.for.intermediatetable cause job to fail
- [KYLIN-978] - GarbageCollectionStep dropped Hive Intermediate Table but didn't drop external hdfs path
- [KYLIN-982] - package.sh should grep out "Download\*" messages when determining version
- [KYLIN-983] - Query sql offset keyword bug
- [KYLIN-985] - Don't support aggregation AVG while executing SQL
- [KYLIN-991] - StorageCleanupJob may clean a newly created HTable in streaming cube building
- [KYLIN-992] - ConcurrentModificationException when initializing ResourceStore
- [KYLIN-993] - implement substr support in kylin
- [KYLIN-1001] - Kylin generates wrong HDFS path in creating intermediate table
- [KYLIN-1004] - Dictionary with " value cause cube merge to fail
- [KYLIN-1020] - Although "kylin.query.scan.threshold" is set, it still be restricted to less than 4 million
- [KYLIN-1026] - Error message for git check is not correct in package.sh
- [KYLIN-1027] - HBase Token not added after KYLIN-1007
- [KYLIN-1033] - Error when joining two sub-queries
- [KYLIN-1039] - Filter like (A or false) yields wrong result
- [KYLIN-1047] - Upgrade to Calcite 1.4
- [KYLIN-1066] - Only 1 reducer is started in the "Build cube" step of MR\_Engine\_V2
- [KYLIN-1067] - Support get MapReduce Job status for ResourceManager HA Env
- [KYLIN-1075] - select [MeasureCol] from [FactTbl] is not supported
- [KYLIN-1093] - Consolidate getCurrentHBaseConfiguration() and newHBaseConfiguration() in HadoopUtil
- [KYLIN-1106] - Can not send email caused by Build Base Cuboid Data step failed
- [KYLIN-1108] - Return Type Empty When Measure-> Count In Cube Design
- [KYLIN-1113] - Support TopN query in v2/CubeStorageQuery.java
- [KYLIN-1115] - Clean up ODBC driver code
- [KYLIN-1121] - ResourceTool download/upload does not work in binary package
- [KYLIN-1127] - Refactor CacheService
- [KYLIN-1137] - TopN measure need support dictionary merge
- [KYLIN-1138] - Bad CubeDesc signature cause segment be delete when enable a cube
- [KYLIN-1140] - Kylin's sample cube "kylin\_sales\_cube" couldn't be saved.
- [KYLIN-1151] - Menu items should be aligned when create new model
- [KYLIN-1152] - ResourceStore should read content and timestamp in one go
- [KYLIN-1153] - Upgrade is needed for cubedesc metadata from 1.3 to 1.4
- [KYLIN-1171] - KylinConfig truncate bug
- [KYLIN-1179] - Cannot use String as partition column
- [KYLIN-1180] - Some NPE in Dictionary

- [KYLIN-1181] - Split metadata size exceeded when data got huge in one segment
- [KYLIN-1182] - DataModelDesc needs to be updated from v1.x to v2.0
- [KYLIN-1192] - Cannot edit data model desc without name change
- [KYLIN-1205] - hbase RpcClient java.io.IOException: Unexpected closed connection
- [KYLIN-1216] - Can't parse DateFormat like 'YYYYMMDD' correctly in query
- [KYLIN-1218] - java.lang.NullPointerException in MeasureTypeFactory when sync hive table
- [KYLIN-1220] - JsonMappingException: Can not deserialize instance of java.lang.String out of START\_ARRAY
- [KYLIN-1225] - Only 15 cubes listed in the /models page
- [KYLIN-1226] - InMemCubeBuilder throw OOM for multiple HLLC measures
- [KYLIN-1230] - When CubeMigrationCLI copied ACL from one env to another, it may not work
- [KYLIN-1236] - redirect to home page when input invalid url
- [KYLIN-1250] - Got NPE when discarding a job
- [KYLIN-1260] - Job status labels are not in same style
- [KYLIN-1269] - Can not get last error message in email
- [KYLIN-1271] - Create streaming table layer will disappear if click on outside
- [KYLIN-1274] - Query from JDBC is partial results by default
- [KYLIN-1282] - Comparison filter on Date/Time column not work for query
- [KYLIN-1289] - Click on subsequent wizard steps doesn't work when editing existing cube or model
- [KYLIN-1303] - Error when in-mem cubing on empty data source which has boolean columns
- [KYLIN-1306] - Null strings are not applied during fast cubing
- [KYLIN-1314] - Display issue for aggression groups
- [KYLIN-1315] - UI: Cannot add normal dimension when creating new cube
- [KYLIN-1316] - Wrong label in Dialog CUBE REFRESH CONFIRM
- [KYLIN-1328] - "UnsupportedOperationException" is thrown when remove a data model
- [KYLIN-1330] - UI create model: Press enter will go back to pre step
- [KYLIN-1336] - 404 errors of model page and api 'access/DataModelDesc' in console
- [KYLIN-1337] - Sort cube name doesn't work well
- [KYLIN-1346] - IllegalStateException happens in SparkCubing
- [KYLIN-1347] - UI: cannot place cursor in front of the last dimension
- [KYLIN-1349] - 'undefined' is logged in console when adding lookup table
- [KYLIN-1352] - 'Cache already exists' exception in high-concurrency query situation
- [KYLIN-1356] - use exec-maven-plugin for IT environment provision
- [KYLIN-1357] - Cloned cube has build time information
- [KYLIN-1372] - Query using PreparedStatement failed with multi OR clause
- [KYLIN-1382] - CubeMigrationCLI reports error when migrate cube
- [KYLIN-1387] - Streaming cubing doesn't generate cuboids files on HDFS, cause cube merge failure
- [KYLIN-1396] - minor bug in BigDecimalSerializer - avoidVerbose should be incremented each time when input scale is larger than given scale
- [KYLIN-1400] - kylin.metadata.url with hbase namespace problem
- [KYLIN-1402] - StringIndexOutOfBoundsException in Kylin Hive Column Cardinality Job
- [KYLIN-1412] - Widget width of "Partition date column" is too small to select
- [KYLIN-1413] - Row key column's sequence is wrong after saving the cube
- [KYLIN-1414] - Couldn't drag and drop rowkey, js error is thrown in browser console
- [KYLIN-1417] - TimedJsonStreamParser is case sensitive for message's property name
- [KYLIN-1419] - NullPointerException occurs when query from subqueries with order by
- [KYLIN-1420] - Query returns empty result on partition column's boundary condition
- [KYLIN-1421] - Cube "source record" is always zero for streaming
- [KYLIN-1423] - HBase size precision issue
- [KYLIN-1430] - Not add "STREAMING\_" prefix when import a streaming table
- [KYLIN-1443] - For setting Auto Merge Time Ranges, before sending them to backend, the related time ranges should be sorted increasingly
- [KYLIN-1456] - Shouldn't use "1970-01-01" as the default end date
- [KYLIN-1471] - LIMIT after having clause should not be pushed down to storage context
- 
- [KYLIN-1104] - Long dimension value cause ArrayIndexOutOfBoundsException
- [KYLIN-1331] - UI Delete Aggregation Groups: cursor disappeared after delete 1 dimension
- [KYLIN-1344] - Bitmap measure defined after TopN measure can cause merge to fail

- [KYLIN-1356] - use exec-maven-plugin for IT environment provision
- [KYLIN-1386] - Duplicated projects appear in connection dialog after clicking CONNECT button multiple times
- [KYLIN-1396] - minor bug in BigDecimalSerializer - avoidVerbose should be incremented each time when input scale is larger than given scale
- [KYLIN-1419] - NullPointerException occurs when query from subqueries with order by
- [KYLIN-1445] - Kylin should throw error if HIVE\_CONF dir cannot be found
- [KYLIN-1466] - Some environment variables are not used in bin/kylin.sh
- [KYLIN-1469] - Hive dependency jars are hard coded in test
- [KYLIN-1471] - LIMIT after having clause should not be pushed down to storage context
- [KYLIN-1473] - Cannot have comments in the end of New Query textbox

### Task

- [KYLIN-529] - Migrate ODBC source code to Apache Git
- [KYLIN-650] - Move all document from github wiki to code repository (using md file)
- [KYLIN-762] - remove quartz dependency
- [KYLIN-763] - remove author name
- [KYLIN-820] - support streaming cube of exact timestamp range
- [KYLIN-907] - Improve Kylin community development experience
- [KYLIN-1112] - Reorganize InvertedIndex source codes into plug-in architecture
- [KYLIN-808] - streaming cubing support split by data timestamp
- [KYLIN-1427] - Enable partition date column to support date and hour as separate columns for increment cube build

### Test

- [KYLIN-677] - benchmark for Endpoint without dictionary
- [KYLIN-826] - create new test case for streaming building & queries

## v1.3.0 - 2016-03-14

Tag: kylin-1.3.0 (<https://github.com/apache/kylin/tree/kylin-1.3.0>)

### New Feature

- [KYLIN-579] - Unload table from Kylin
- [KYLIN-976] - Support Custom Aggregation Types
- [KYLIN-1054] - Support Hive client Beeline
- [KYLIN-1128] - Clone Cube Metadata
- [KYLIN-1186] - Support precise Count Distinct using bitmap (under limited conditions)

### Improvement

- [KYLIN-955] - HiveColumnCardinalityJob should use configurations in conf/kylin\_job\_conf.xml
- [KYLIN-1014] - Support kerberos authentication while getting status from RM
- [KYLIN-1074] - Load hive tables with selecting mode
- [KYLIN-1082] - Hive dependencies should be add to tmpjars
- [KYLIN-1132] - make filtering input easier in creating cube
- [KYLIN-1201] - Enhance project level ACL
- [KYLIN-1211] - Add 'Enable Cache' button in System page
- [KYLIN-1234] - Cube ACL does not work
- [KYLIN-1240] - Fix link and typo in README
- [KYLIN-1244] - In query window, enable fast copy&paste by double clicking tables/columns' names.
- [KYLIN-1246] - get cubes API update - offset,limit not required
- [KYLIN-1251] - add toggle event for tree label
- [KYLIN-1259] - Change font/background color of job progress
- [KYLIN-1312] - Enhance DeployCoprocessorCLI to support Cube level filter
- [KYLIN-1317] - Kill underlying running hadoop job while discard a job
- [KYLIN-1323] - Improve performance of converting data to hfile
- [KYLIN-1333] - Kylin Entity Permission Control
- [KYLIN-1343] - Upgrade calcite version to 1.6

- [KYLIN-1365] - Kylin ACL enhancement
- [KYLIN-1368] - JDBC Driver is not generic to restAPI json result

## Bug

- [KYLIN-918] - Calcite throws "java.lang.Float cannot be cast to java.lang.Double" error while executing SQL
- [KYLIN-1075] - select [MeasureCol] from [FactTbl] is not supported
- [KYLIN-1078] - Cannot have comments in the end of New Query textbox
- [KYLIN-1104] - Long dimension value cause ArrayIndexOutOfBoundsException
- [KYLIN-1110] - can not see project options after clear browser cookie and cache
- [KYLIN-1159] - problem about kylin web UI
- [KYLIN-1214] - Remove "Back to My Cubes" link in non-edit mode
- [KYLIN-1215] - minor, update website member's info on community page
- [KYLIN-1230] - When CubeMigrationCLI copied ACL from one env to another, it may not work
- [KYLIN-1236] - redirect to home page when input invalid url
- [KYLIN-1250] - Got NPE when discarding a job
- [KYLIN-1254] - cube model will be overridden while creating a new cube with the same name
- [KYLIN-1260] - Job status labels are not in same style
- [KYLIN-1274] - Query from JDBC is partial results by default
- [KYLIN-1316] - Wrong label in Dialog CUBE REFRESH CONFIRM
- [KYLIN-1330] - UI create model: Press enter will go back to pre step
- [KYLIN-1331] - UI Delete Aggregation Groups: cursor disappeared after delete 1 dimension
- [KYLIN-1342] - Typo in doc
- [KYLIN-1354] - Couldn't edit a cube if it has no "partition date" set
- [KYLIN-1372] - Query using PreparedStatement failed with multi OR clause
- [KYLIN-1396] - minor bug in BigDecimalSerializer - avoidVerbose should be incremented each time when input scale is larger than given scale
- [KYLIN-1400] - kylin.metadata.url with hbase namespace problem
- [KYLIN-1402] - StringIndexOutOfBoundsException in Kylin Hive Column Cardinality Job
- [KYLIN-1412] - Widget width of "Partition date column" is too small to select
- [KYLIN-1419] - NullPointerException occurs when query from subqueries with order by
- [KYLIN-1423] - HBase size precision issue
- [KYLIN-1443] - For setting Auto Merge Time Ranges, before sending them to backend, the related time ranges should be sorted increasingly
- [KYLIN-1445] - Kylin should throw error if HIVE\_CONF dir cannot be found
- [KYLIN-1456] - Shouldn't use "1970-01-01" as the default end date
- [KYLIN-1466] - Some environment variables are not used in bin/kylin.sh
- [KYLIN-1469] - Hive dependency jars are hard coded in test

## Test

- [KYLIN-1335] - Disable PrintResult in KylinQueryTest

## v1.2 - 2015-12-15

Tag: kylin-1.2 (<https://github.com/apache/kylin/tree/kylin-1.2>)

## New Feature

- [KYLIN-596] - Support Excel and Power BI

## Improvement

- [KYLIN-389] - Can't edit cube name for existing cubes
- [KYLIN-702] - When Kylin create the flat hive table, it generates large number of small files in HDFS
- [KYLIN-1021] - upload dependent jars of kylin to HDFS and set tmpjars
- [KYLIN-1058] - Remove "right join" during model creation
- [KYLIN-1064] - restore disabled queries in KylinQueryTest.testVerifyQuery
- [KYLIN-1065] - ODBC driver support tableau 9.1
- [KYLIN-1069] - update tip for 'Partition Column' on UI
- [KYLIN-1081] - ./bin/find-hive-dependency.sh may not find hive-hcatalog-core.jar

- [KYLIN-1095] - Update AdminLTE to latest version
- [KYLIN-1099] - Support dictionary of cardinality over 10 millions
- [KYLIN-1101] - Allow "YYYYMMDD" as a date partition column
- [KYLIN-1105] - Cache in AbstractRowKeyEncoder.createInstance() is useless
- [KYLIN-1119] - refine find-hive-dependency.sh to correctly get hcatalog path
- [KYLIN-1139] - Hive job not starting due to error "conflicting lock present for default mode EXCLUSIVE "
- [KYLIN-1149] - When yarn return an incomplete job tracking URL, Kylin will fail to get job status
- [KYLIN-1154] - Load job page is very slow when there are a lot of history job
- [KYLIN-1157] - CubeMigrationCLI doesn't copy ACL
- [KYLIN-1160] - Set default logger appender of log4j for JDBC
- [KYLIN-1161] - Rest API /api/cubes?cubeName= is doing fuzzy match instead of exact match
- [KYLIN-1162] - Enhance HadoopStatusGetter to be compatible with YARN-2605
- [KYLIN-1166] - CubeMigrationCLI should disable and purge the cube in source store after be migrated
- [KYLIN-1168] - Couldn't save cube after doing some modification, get "Update data model is not allowed! Please create a new cube if needed" error
- [KYLIN-1190] - Make memory budget per query configurable

### Bug

- [KYLIN-693] - Couldn't change a cube's name after it be created
- [KYLIN-930] - can't see realizations under each project at project list page
- [KYLIN-966] - When user creates a cube, if enter a name which already exists, Kylin will thrown exception on last step
- [KYLIN-1033] - Error when joining two sub-queries
- [KYLIN-1039] - Filter like (A or false) yields wrong result
- [KYLIN-1067] - Support get MapReduce Job status for ResourceManager HA Env
- [KYLIN-1070] - changing case in table name in model desc
- [KYLIN-1093] - Consolidate getCurrentHBaseConfiguration() and newHBaseConfiguration() in HadoopUtil
- [KYLIN-1098] - two "kylin.hbase.region.count.min" in conf/kylin.properties
- [KYLIN-1106] - Can not send email caused by Build Base Cuboid Data step failed
- [KYLIN-1108] - Return Type Empty When Measure-> Count In Cube Design
- [KYLIN-1120] - MapReduce job read local meta issue
- [KYLIN-1121] - ResourceTool download/upload does not work in binary package
- [KYLIN-1140] - Kylin's sample cube "kylin\_sales\_cube" couldn't be saved.
- [KYLIN-1148] - Edit project's name and cancel edit, project's name still modified
- [KYLIN-1152] - ResourceStore should read content and timestamp in one go
- [KYLIN-1155] - unit test with minicluster doesn't work on 1.x
- [KYLIN-1203] - Cannot save cube after correcting the configuration mistake
- [KYLIN-1205] - hbase RpcClient java.io.IOException: Unexpected closed connection
- [KYLIN-1216] - Can't parse DateFormat like 'YYYYMMDD' correctly in query

### Task

- [KYLIN-1170] - Update website and status files to TLP

## v1.1.1-incubating - 2015-11-04

Tag: kylin-1.1.1-incubating (<https://github.com/apache/kylin/tree/kylin-1.1.1-incubating>)

### Improvement

- [KYLIN-999] - License check and cleanup for release

## v1.1-incubating - 2015-10-25

Tag: kylin-1.1-incubating (<https://github.com/apache/kylin/tree/kylin-1.1-incubating>)

### New Feature

- [KYLIN-222] - Web UI to Display CubeInstance Information
- [KYLIN-906] - cube retention
- [KYLIN-910] - Allow user to enter "retention range" in days on Cube UI

## Bug

- [KYLIN-457] - log4j error and dup lines in kylin.log
- [KYLIN-632] - "kylin.sh stop" doesn't check whether KYLIN\_HOME was set
- [KYLIN-740] - Slowness with many IN() values
- [KYLIN-747] - bad query performance when IN clause contains a value doesn't exist in the dictionary
- [KYLIN-771] - query cache is not evicted when metadata changes
- [KYLIN-797] - Cuboid cache will cache massive invalid cuboid if existed many cubes which already be deleted
- [KYLIN-847] - "select \* from fact" does not work on 0.7 branch
- [KYLIN-913] - Cannot find rowkey column XXX in cube CubeDesc
- [KYLIN-918] - Calcite throws "java.lang.Float cannot be cast to java.lang.Double" error while executing SQL
- [KYLIN-944] - update doc about how to consume kylin API in javascript
- [KYLIN-950] - Web UI "Jobs" tab view the job reduplicated
- [KYLIN-952] - User can trigger a Refresh job on an non-existing cube segment via REST API
- [KYLIN-958] - update cube data model may fail and leave metadata in inconsistent state
- [KYLIN-961] - Can't get cube source record count.
- [KYLIN-967] - Dump running queries on memory shortage
- [KYLIN-968] - CubeSegment.lastBuildJobID is null in new instance but used for rowkey\_stats path
- [KYLIN-975] - change kylin.job.hive.database.for.intermediatetable cause job to fail
- [KYLIN-978] - GarbageCollectionStep dropped Hive Intermediate Table but didn't drop external hdfs path
- [KYLIN-982] - package.sh should grep out "Download\*" messages when determining version
- [KYLIN-983] - Query sql offset keyword bug
- [KYLIN-985] - Don't support aggregation AVG while executing SQL
- [KYLIN-1001] - Kylin generates wrong HDFS path in creating intermediate table
- [KYLIN-1004] - Dictionary with " value cause cube merge to fail
- [KYLIN-1005] - fail to acquire ZookeeperJobLock when hbase.zookeeper.property.clientPort is configured other than 2181
- [KYLIN-1015] - Hive dependency jars appeared twice on job configuration
- [KYLIN-1020] - Although "kylin.query.scan.threshold" is set, it still be restricted to less than 4 million
- [KYLIN-1026] - Error message for git check is not correct in package.sh

## Improvement

- [KYLIN-343] - Enable timeout on query
- [KYLIN-367] - automatically backup metadata everyday
- [KYLIN-589] - Cleanup Intermediate hive table after cube build
- [KYLIN-772] - Continue cube job when hive query return empty resultset
- [KYLIN-858] - add snappy compression support
- [KYLIN-882] - check access to kylin.hdfs.working.dir
- [KYLIN-895] - Add "retention\_range" attribute for cube instance, and automatically drop the oldest segment when exceeds retention
- [KYLIN-901] - Add tool for cleanup Kylin metadata storage
- [KYLIN-956] - Allow users to configure hbase compression algorithm in kylin.properties
- [KYLIN-957] - Support HBase in a separate cluster
- [KYLIN-965] - Allow user to configure the region split size for cube
- [KYLIN-971] - kylin display timezone on UI
- [KYLIN-987] - Rename 0.7-staging and 0.8 branch
- [KYLIN-998] - Finish the hive intermediate table clean up job in org.apache.kylin.job.hadoop.cube.StorageCleanupJob
- [KYLIN-999] - License check and cleanup for release
- [KYLIN-1013] - Make hbase client configurations like timeout configurable
- [KYLIN-1025] - Save cube change is very slow
- [KYLIN-1034] - Faster bitmap indexes with Roaring bitmaps
- [KYLIN-1035] - Validate [Project] before create Cube on UI
- [KYLIN-1037] - Remove hardcoded "hdp.version" from regression tests
- [KYLIN-1047] - Upgrade to Calcite 1.4
- [KYLIN-1048] - CPU and memory killer in Cuboid.findById()
- [KYLIN-1061] - "kylin.sh start" should check whether kylin has already been running
- [KYLIN-1048] - CPU and memory killer in Cuboid.findById()
- [KYLIN-1061] - "kylin.sh start" should check whether kylin has already been running

## v1.0-incubating - 2015-09-06

Tag: kylin-1.0-incubating (<https://github.com/apache/kylin/tree/kylin-1.0-incubating>)

### New Feature

- [KYLIN-591] - Leverage Zeppelin to interactive with Kylin

### Bug

- [KYLIN-404] - Can't get cube source record size.
- [KYLIN-626] - JDBC error for float and double values
- [KYLIN-751] - Max on negative double values is not working
- [KYLIN-757] - Cache wasn't flushed in cluster mode
- [KYLIN-780] - Upgrade Calcite to 1.0
- [KYLIN-805] - Drop useless Hive intermediate table and HBase tables in the last step of cube build/merge
- [KYLIN-889] - Support more than one HDFS files of lookup table
- [KYLIN-897] - Update CubeMigrationCLI to copy data model info
- [KYLIN-898] - "CUBOID\_CACHE" in Cuboid.java never flushes
- [KYLIN-911] - NEW segments not DELETED when cancel BuildAndMerge Job
- [KYLIN-912] - \$KYLIN\_HOME/tomcat/temp folder takes much disk space after long run
- [KYLIN-914] - Scripts shebang should use /bin/bash
- [KYLIN-915] - appendDBName in CubeMetadataUpgrade will return null
- [KYLIN-921] - Dimension with all nulls cause BuildDimensionDictionary failed due to FileNotFoundException
- [KYLIN-923] - FetcherRunner will never run again if encountered exception during running
- [KYLIN-929] - can not sort cubes by [Source Records] at cubes list page
- [KYLIN-934] - Negative number in SUM result and Kylin results not matching exactly Hive results
- [KYLIN-935] - always loading when try to view the log of the sub-step of cube build job
- [KYLIN-936] - can not see job step log
- [KYLIN-940] - NPE when close the null resource
- [KYLIN-945] - Kylin JDBC - Get Connection from DataSource results in NullPointerException
- [KYLIN-946] - [UI] refresh page show no results when Project selected as [-Select All-]
- [KYLIN-949] - Query cache doesn't work properly for preparedStatement queries

### Improvement

- [KYLIN-568] - job support stop/suspend function so that users can manually resume a job
- [KYLIN-717] - optimize OLAPEnumerator.convertCurrentRow()
- [KYLIN-792] - kylin performance insight [dashboard]
- [KYLIN-838] - improve performance of job query
- [KYLIN-842] - Add version and commit id into binary package
- [KYLIN-844] - add backdoor toggles to control query behavior
- [KYLIN-857] - backport coprocessor improvement in 0.8 to 0.7
- [KYLIN-866] - Confirm with user when he selects empty segments to merge
- [KYLIN-867] - Hybrid model for multiple realizations/cubes
- [KYLIN-880] - Kylin should change the default folder from /tmp to user configurable destination
- [KYLIN-881] - Upgrade Calcite to 1.3.0
- [KYLIN-883] - Using configurable option for Hive intermediate tables created by Kylin job
- [KYLIN-893] - Remove the dependency on quartz and metrics
- [KYLIN-922] - Enforce same code style for both IntelliJ and Eclipse user
- [KYLIN-926] - Make sure Kylin leaves no garbage files in local OS and HDFS/HBASE
- [KYLIN-933] - friendly UI to use data model
- [KYLIN-938] - add friendly tip to page when rest request failed

### Task

- [KYLIN-884] - Restructure docs and website
- [KYLIN-907] - Improve Kylin community development experience
- [KYLIN-954] - Release v1.0 (formerly v0.7.3)
- [KYLIN-863] - create empty segment when there is no data in one single streaming batch
- [KYLIN-908] - Help community developer to setup develop/debug environment



- [KYLIN-931] - Port KYLIN-921 to 0.8 branch

## v0.7.2-incubating - 2015-07-21

Tag: kylin-0.7.2-incubating (<https://github.com/apache/kylin/tree/kylin-0.7.2-incubating>)

### Main Changes:

Critical bug fixes after v0.7.1 release, please go with this version directly for new case and upgrade to this version for existing deployment.

### Bug

- [KYLIN-514] - Error message is not helpful to user when doing something in Jason Editor window
- [KYLIN-598] - Kylin detecting hive table delim failure
- [KYLIN-660] - Make configurable of dictionary cardinality cap
- [KYLIN-765] - When a cube job is failed, still be possible to submit a new job
- [KYLIN-814] - Duplicate columns error for subqueries on fact table
- [KYLIN-819] - Fix necessary ColumnMetaData order for Calcite (Optic)
- [KYLIN-824] - Cube Build fails if lookup table doesn't have any files under HDFS location
- [KYLIN-829] - Cube "Actions" shows "NA" ; but after expand the "access" tab, the button shows up
- [KYLIN-830] - Cube merge failed after migrating from v0.6 to v0.7
- [KYLIN-831] - Kylin report "Column 'ABC' not found in table 'TABLE' while executing SQL" , when that column is FK but not define as a dimension
- [KYLIN-840] - HBase table compress not enabled even LZO is installed
- [KYLIN-848] - Couldn't resume or discard a cube job
- [KYLIN-849] - Couldn't query metrics on lookup table PK
- [KYLIN-865] - Cube has been built but couldn't query; In log it said "Realization 'CUBE.CUBE\_NAME' defined under project PROJECT\_NAME is not found
- [KYLIN-873] - cancel button does not work when [resume][discard] job
- [KYLIN-888] - "Jobs" page only shows 15 job at max, the "Load more" button was disappeared

### Improvement

- [KYLIN-159] - Metadata migrate tool
- [KYLIN-199] - Validation Rule: Unique value of Lookup table's key columns
- [KYLIN-207] - Support SQL pagination
- [KYLIN-209] - Merge tail small MR jobs into one
- [KYLIN-210] - Split heavy MR job to more small jobs
- [KYLIN-221] - Convert cleanup and GC to job
- [KYLIN-284] - add log for all Rest API Request
- [KYLIN-488] - Increase HDFS block size 1GB
- [KYLIN-600] - measure return type update
- [KYLIN-611] - Allow Implicit Joins
- [KYLIN-623] - update Kylin UI Style to latest AdminLTE
- [KYLIN-727] - Cube build in BuildCubeWithEngine does not cover incremental build/cube merge
- [KYLIN-752] - Improved IN clause performance
- [KYLIN-773] - performance is slow list jobs
- [KYLIN-839] - Optimize Snapshot table memory usage

### New Feature

- [KYLIN-211] - Bitmap Inverted Index
- [KYLIN-285] - Enhance alert program for whole system
- [KYLIN-467] - Validation Rule: Check duplicate rows in lookup table
- [KYLIN-471] - Support "Copy" on grid result

### Task

- [KYLIN-7] - Enable maven checkstyle plugin
- [KYLIN-885] - Release v0.7.2
- [KYLIN-812] - Upgrade to Calcite 0.9.2

## v0.7.1-incubating (First Apache Release) - 2015-06-10

Tag: kylin-0.7.1-incubating (<https://github.com/apache/kylin/tree/kylin-0.7.1-incubating>)

Apache Kylin v0.7.1-incubating has rolled out on June 10, 2015. This is also the first Apache release after join incubating.

### Main Changes:

- Package renamed from com.kylinolap to org.apache.kylin
- Code cleaned up to apply Apache License policy
- Easy install and setup with bunch of scripts and automation
- Job engine refactor to be generic job manager for all jobs, and improved efficiency
- Support Hive database other than 'default'
- JDBC driver available for client to interactive with Kylin server
- Binary package available download

### New Feature

- [KYLIN-327] - Binary distribution
- [KYLIN-368] - Move MailService to Common module
- [KYLIN-540] - Data model upgrade for legacy cube desc
- [KYLIN-576] - Refactor expansion rate expression

### Task

- [KYLIN-361] - Rename package name with Apache Kylin
- [KYLIN-531] - Rename package name to org.apache.kylin
- [KYLIN-533] - Job Engine Refactoring
- [KYLIN-585] - Simplify deployment
- [KYLIN-586] - Add Apache License header in each source file
- [KYLIN-587] - Remove hard copy of javascript libraries
- [KYLIN-624] - Add dimension and metric info into DataModel
- [KYLIN-650] - Move all document from github wiki to code repository (using md file)
- [KYLIN-669] - Release v0.7.1 as first apache release
- [KYLIN-670] - Update pom with "incubating" in version number
- [KYLIN-737] - Generate and sign release package for review and vote
- [KYLIN-795] - Release after success vote

### Bug

- [KYLIN-132] - Job framework
- [KYLIN-194] - Dict & ColumnValueContainer does not support number comparison, they do string comparison right now
- [KYLIN-220] - Enable swap column of Rowkeys in Cube Designer
- [KYLIN-230] - Error when create HTable
- [KYLIN-255] - Error when a aggregated function appear twice in select clause
- [KYLIN-383] - Sample Hive EDW database name should be replaced by "default" in the sample
- [KYLIN-399] - refreshed segment not correctly published to cube
- [KYLIN-412] - No exception or message when sync up table which can't access
- [KYLIN-421] - Hive table metadata issue
- [KYLIN-436] - Can't sync Hive table metadata from other database rather than "default"
- [KYLIN-508] - Too high cardinality is not suitable for dictionary!
- [KYLIN-509] - Order by on fact table not works correctly
- [KYLIN-517] - Always delete the last one of Add Lookup page button even if deleting the first join condition
- [KYLIN-524] - Exception will throw out if dimension is created on a lookup table, then deleting the lookup table.
- [KYLIN-547] - Create cube failed if column dictionary sets false and column length value greater than 0
- [KYLIN-556] - error tip enhance when cube detail return empty
- [KYLIN-570] - Need not to call API before sending login request
- [KYLIN-571] - Dimensions lost when creating cube through Joson Editor
- [KYLIN-572] - HTable size is wrong
- [KYLIN-581] - unable to build cube
- [KYLIN-583] - Dependency of Hive conf/jar in II branch will affect auto deploy

- [KYLIN-588] - Error when run package.sh
- [KYLIN-593] - angular.min.js.map and angular-resource.min.js.map are missing in kylin.war
- [KYLIN-594] - Making changes in build and packaging with respect to apache release process
- [KYLIN-595] - Kylin JDBC driver should not assume Kylin server listen on either 80 or 443
- [KYLIN-605] - Issue when install Kylin on a CLI which does not have yarn Resource Manager
- [KYLIN-614] - find hive dependency shell fine is unable to set the hive dependency correctly
- [KYLIN-615] - Unable add measures in Kylin web UI
- [KYLIN-619] - Cube build fails with hive+tez
- [KYLIN-620] - Wrong duration number
- [KYLIN-621] - SecurityException when running MR job
- [KYLIN-627] - Hive tables' partition column was not sync into Kylin
- [KYLIN-628] - Couldn't build a new created cube
- [KYLIN-629] - Kylin failed to run mapreduce job if there is no mapreduce.application.classpath in mapred-site.xml
- [KYLIN-630] - ArrayIndexOutOfBoundsException when merge cube segments
- [KYLIN-638] - kylin.sh stop not working
- [KYLIN-639] - Get "Table 'xxxx' not found while executing SQL" error after a cube be successfully built
- [KYLIN-640] - sum of float not working
- [KYLIN-642] - Couldn't refresh cube segment
- [KYLIN-643] - JDBC couldn't connect to Kylin: "java.sql.SQLException: Authentication Failed"
- [KYLIN-644] - join table as null error when build the cube
- [KYLIN-652] - Lookup table alias will be set to null
- [KYLIN-657] - JDBC Driver not register into DriverManager
- [KYLIN-658] - java.lang.IllegalArgumentException: Cannot find rowkey column XXX in cube CubeDesc
- [KYLIN-659] - Couldn't adjust the rowkey sequence when create cube
- [KYLIN-666] - Select float type column got class cast exception
- [KYLIN-681] - Failed to build dictionary if the rowkey's dictionary property is "date(yyyy-mm-dd)"
- [KYLIN-682] - Got "No aggregator for func 'MIN' and return type 'decimal(19,4)' " error when build cube
- [KYLIN-684] - Remove holistic distinct count and multiple column distinct count from sample cube
- [KYLIN-691] - update tomcat download address in download-tomcat.sh
- [KYLIN-696] - Dictionary couldn't recognize a value and throw IllegalArgumentException: "Not a valid value"
- [KYLIN-703] - UT failed due to unknown host issue
- [KYLIN-711] - UT failure in REST module
- [KYLIN-739] - Dimension as metrics does not work with PK-FK derived column
- [KYLIN-761] - Tables are not shown in the "Query" tab, and couldn't run SQL query after cube be built

## Improvement

- [KYLIN-168] - Installation fails if multiple ZK
- [KYLIN-182] - Validation Rule: columns used in Join condition should have same datatype
- [KYLIN-204] - Kylin web not works properly in IE
- [KYLIN-217] - Enhance coprocessor with endpoints
- [KYLIN-251] - job engine refactoring
- [KYLIN-261] - derived column validate when create cube
- [KYLIN-317] - note: grunt.json need to be configured when add new javascript or css file
- [KYLIN-324] - Refactor metadata to support InvertedIndex
- [KYLIN-407] - Validation: There's should no Hive table column using "binary" data type
- [KYLIN-445] - Rename cube\_desc/cube folder
- [KYLIN-452] - Automatically create local cluster for running tests
- [KYLIN-498] - Merge metadata tables
- [KYLIN-532] - Refactor data model in kylin front end
- [KYLIN-539] - use hbase command to launch tomcat
- [KYLIN-542] - add project property feature for cube
- [KYLIN-553] - From cube instance, couldn't easily find the project instance that it belongs to
- [KYLIN-563] - Wrap kylin start and stop with a script
- [KYLIN-567] - More flexible validation of new segments
- [KYLIN-569] - Support increment+merge job
- [KYLIN-578] - add more generic configuration for ssh
- [KYLIN-601] - Extract content from kylin.tgz to "kylin" folder

- [KYLIN-616] - Validation Rule: partition date column should be in dimension columns
- [KYLIN-634] - Script to import sample data and cube metadata
- [KYLIN-636] - wiki/On-Hadoop-CLI-installation is not up to date
- [KYLIN-637] - add start&end date for hbase info in cubeDesigner
- [KYLIN-714] - Add Apache RAT to pom.xml
- [KYLIN-753] - Make the dependency on hbase-common to "provided"
- [KYLIN-758] - Updating port forwarding issue Hadoop Installation on Hortonworks Sandbox.
- [KYLIN-779] - [UI] jump to cube list after create cube
- [KYLIN-796] - Add REST API to trigger storage cleanup/GC

## Wish

- [KYLIN-608] - Distinct count for ii storage



The contents of this website are © 2015 Apache Software Foundation under the terms of the Apache License v2 (<http://www.apache.org/licenses/LICENSE-2.0>). Apache Kylin and its logo are trademarks of the Apache Software Foundation.



