HDInsight June 2018 refresh

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# Summary

Azure HDInsight is one of the most popular services amongst enterprise for open source Hadoop & Spark analytics on Azure. With the [plus 50 percent price cut on HDInsight](https://azure.microsoft.com/en-us/blog/azure-hdinsight-announcements-significant-price-reduction-and-amazing-new-capabilities/), customers moving to the cloud are reaping more savings than ever.

# New features

The new updates and capabilities fall in to the following categories:

1. **Update Hadoop and other open source projects** – In addition to, 1000+ bug fixes across 20+ open source projects, this update contains a new version of **Spark (2.3)** and **Kafka (1.0)**.
   1. [**New features in Spark 2.3**](https://spark.apache.org/releases/spark-release-2-3-0.html)
   2. [**New features in Kafka 1.0**](https://www.apache.org/dist/kafka/1.0.0/RELEASE_NOTES.html)
2. **Update R Server 9.1 to Machine Learning Services 9.3** – With this release, we are providing data scientists and engineers with the best of open source enhanced with algorithmic innovations and ease of operationalization, all available in their preferred language with the speed of Apache Spark. This release expands upon the capabilities offered in R Server with added support for Python, leading to the cluster name change from R Server to ML Services.
3. **Support for Azure Data Lake Storage Gen2**– HDInsight will support the Preview release of Azure Data Lake Storage Gen2. In the available regions, customers will be able to choose an ADLS Gen2 account as the Primary or Secondary store for their HDInsight clusters.
4. **HDInsight Enterprise Security Package Updates (Preview)** – (Preview) [Virtual Network Service Endpoints](https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-service-endpoints-overview)  support for Azure Blob Storage, ADLS Gen1, Cosmos DB and Azure DB.

# Component versions

The official Apache versions of all HDInsight 3.6 components are listed below. All components listed here are official Apache releases of the most recent stable versions available.

* Apache Hadoop 2.7.3
* Apache HBase 1.1.2
* Apache Hive 1.2.1
* Apache Hive 2.1.0
* Apache Kafka 1.0.0
* Apache Mahout 0.9.0+
* Apache Oozie 4.2.0
* Apache Phoenix 4.7.0
* Apache Pig 0.16.0
* Apache Ranger 0.7.0
* Apache Slider 0.92.0
* Apache Spark 2.2.0/2.3.0
* Apache Sqoop 1.4.6
* Apache Storm 1.1.0
* Apache TEZ 0.7.0
* Apache Zeppelin 0.7.3
* Apache ZooKeeper 3.4.6

Later versions of a few Apache components are sometimes bundled in the HDP distribution in addition to the versions listed above. In this case, these later versions are listed in the Technical Previews table and should not substitute for the Apache component versions of the above list in a production environment.

# Technical Preview Features

The following features are available within this release but are not ready for production deployment. We encourage you to explore these technical preview features in non-production environments and provide feedback on your experiences through the [MSDN forum](https://social.msdn.microsoft.com/forums/azure/en-US/home?forum=hdinsight) or [Stackoverflow (#hdinsight)](https://stackoverflow.com/questions/tagged/hdinsight).

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# Apache Patch Information

## Hadoop

This release provides Hadoop Common 2.7.3 and the following Apache patches:

* [HADOOP-13190](https://issues.apache.org/jira/browse/HADOOP-13190): Mention LoadBalancingKMSClientProvider in KMS HA documentation.
* [HADOOP-13227](https://issues.apache.org/jira/browse/HADOOP-13227): AsyncCallHandler should use an event driven architecture to handle async calls.
* [HADOOP-14104](https://issues.apache.org/jira/browse/HADOOP-14104): Client should always ask namenode for kms provider path.
* [HADOOP-14799](https://issues.apache.org/jira/browse/HADOOP-14799): Update nimbus-jose-jwt to 4.41.1.
* [HADOOP-14814](https://issues.apache.org/jira/browse/HADOOP-14814): Fix incompatible API change on FsServerDefaults to HADOOP-14104.
* [HADOOP-14903](https://issues.apache.org/jira/browse/HADOOP-14903): Add json-smart explicitly to pom.xml.
* [HADOOP-15042](https://issues.apache.org/jira/browse/HADOOP-15042): Azure PageBlobInputStream.skip() can return negative value when numberOfPagesRemaining is 0.
* [HADOOP-15255](https://issues.apache.org/jira/browse/HADOOP-15255): Upper/Lower case conversion support for group names in LdapGroupsMapping.
* [HADOOP-15265](https://issues.apache.org/jira/browse/HADOOP-15265): exclude json-smart explicitly from hadoop-auth pom.xml.
* [HDFS-7922](https://issues.apache.org/jira/browse/HDFS-7922): ShortCircuitCache#close is not releasing ScheduledThreadPoolExecutors.
* [HDFS-8496](https://issues.apache.org/jira/browse/HDFS-8496): Calling stopWriter() with FSDatasetImpl lock held may block other threads (cmccabe).
* [HDFS-10267](https://issues.apache.org/jira/browse/HDFS-10267): Extra "synchronized" on FsDatasetImpl#recoverAppend and FsDatasetImpl#recoverClose.
* [HDFS-10489](https://issues.apache.org/jira/browse/HDFS-10489): Deprecate dfs.encryption.key.provider.uri for HDFS encryption zones.
* [HDFS-11384](https://issues.apache.org/jira/browse/HDFS-11384): Add option for balancer to disperse getBlocks calls to avoid NameNode's rpc.CallQueueLength spike.
* [HDFS-11689](https://issues.apache.org/jira/browse/HDFS-11689): New exception thrown by DFSClient%isHDFSEncryptionEnabled broke hacky hive code..
* [HDFS-11711](https://issues.apache.org/jira/browse/HDFS-11711): DN should not delete the block On "Too many open files" Exception.
* [HDFS-12347](https://issues.apache.org/jira/browse/HDFS-12347): TestBalancerRPCDelay#testBalancerRPCDelay fails very frequently.
* [HDFS-12781](https://issues.apache.org/jira/browse/HDFS-12781): After Datanode down, In Namenode UI Datanode tab is throwing warning message..
* [HDFS-13054](https://issues.apache.org/jira/browse/HDFS-13054): Handling PathIsNotEmptyDirectoryException in DFSClient delete call..
* [HDFS-13120](https://issues.apache.org/jira/browse/HDFS-13120): Snapshot diff could be corrupted after concat.
* [YARN-3742](https://issues.apache.org/jira/browse/YARN-3742): YARN RM will shut down if ZKClient creation times out.
* [YARN-6061](https://issues.apache.org/jira/browse/YARN-6061): Add an UncaughtExceptionHandler for critical threads in RM.
* [YARN-7558](https://issues.apache.org/jira/browse/YARN-7558): yarn logs command fails to get logs for running containers if UI authentication is enabled.
* [YARN-7697](https://issues.apache.org/jira/browse/YARN-7697): Fetching logs for finished application fails even though log aggregation is complete.

HDP 2.6.4 provided Hadoop Common 2.7.3 and the following Apache patches:

* [HADOOP-13700](https://issues.apache.org/jira/browse/HADOOP-13700): Remove unthrown IOException from TrashPolicy#initialize and #getInstance signatures.
* [HADOOP-13709](https://issues.apache.org/jira/browse/HADOOP-13709): Ability to clean up subprocesses spawned by Shell when the process exits..
* [HADOOP-14059](https://issues.apache.org/jira/browse/HADOOP-14059): typo in s3a rename(self, subdir) error message.
* [HADOOP-14542](https://issues.apache.org/jira/browse/HADOOP-14542): Add IOUtils.cleanupWithLogger that accepts slf4j logger API.
* [HDFS-9887](https://issues.apache.org/jira/browse/HDFS-9887): WebHdfs socket timeouts should be configurable.
* [HDFS-9914](https://issues.apache.org/jira/browse/HDFS-9914): Fix configurable WebhDFS connect/read timeout.
* [MAPREDUCE-6698](https://issues.apache.org/jira/browse/MAPREDUCE-6698): Increase timeout on TestUnnecessaryBlockingOnHist oryFileInfo.testTwoThreadsQueryingDifferentJobOfSameUser.
* [YARN-4550](https://issues.apache.org/jira/browse/YARN-4550): Some tests in TestContainerLanch fails on non-english locale environment.
* [YARN-4717](https://issues.apache.org/jira/browse/YARN-4717): TestResourceLocalizationService.testPublicResourceInitializesLocalDir fails Intermittently due to IllegalArgumentException from cleanup.
* [YARN-5042](https://issues.apache.org/jira/browse/YARN-5042): Mount /sys/fs/cgroup into Docker containers as readonly mount.
* [YARN-5318](https://issues.apache.org/jira/browse/YARN-5318): Fix intermittent test failure of TestRMAdminService#te stRefreshNodesResourceWithFileSystemBasedConfigurationProvider.
* [YARN-5641](https://issues.apache.org/jira/browse/YARN-5641): Localizer leaves behind tarballs after container is complete..
* [YARN-6004](https://issues.apache.org/jira/browse/YARN-6004): Refactor TestResourceLocalizationService#testDownloadingResourcesOnContainer so that it is less than 150 lines.
* [YARN-6078](https://issues.apache.org/jira/browse/YARN-6078): Containers stuck in Localizing state.
* [YARN-6805](https://issues.apache.org/jira/browse/YARN-6805): NPE in LinuxContainerExecutor due to null PrivilegedOperationException exit code.

## HBase

This release provides HBase 1.1.2 and the following Apache patches.

* [HBASE-13376](https://issues.apache.org/jira/browse/HBASE-13376): Improvements to Stochastic load balancer.
* [HBASE-13716](https://issues.apache.org/jira/browse/HBASE-13716): Stop using Hadoop's FSConstants.
* [HBASE-13848](https://issues.apache.org/jira/browse/HBASE-13848): Access InfoServer SSL passwords through Credential Provder API.
* [HBASE-13947](https://issues.apache.org/jira/browse/HBASE-13947): Use MasterServices instead of Server in AssignmentManager.
* [HBASE-14135](https://issues.apache.org/jira/browse/HBASE-14135): HBase Backup/Restore Phase 3: Merge backup images.
* [HBASE-14473](https://issues.apache.org/jira/browse/HBASE-14473): Compute region locality in parallel.
* [HBASE-14517](https://issues.apache.org/jira/browse/HBASE-14517): Show regionserver's version in master status page.
* [HBASE-14606](https://issues.apache.org/jira/browse/HBASE-14606): TestSecureLoadIncrementalHFiles tests timed out in trunk build on apache.
* [HBASE-15210](https://issues.apache.org/jira/browse/HBASE-15210): Undo aggressive load balancer logging at tens of lines per millisecond.
* [HBASE-15515](https://issues.apache.org/jira/browse/HBASE-15515): Improve LocalityBasedCandidateGenerator in Balancer.
* [HBASE-15615](https://issues.apache.org/jira/browse/HBASE-15615): Wrong sleep time when RegionServerCallable need retry.
* [HBASE-16135](https://issues.apache.org/jira/browse/HBASE-16135): PeerClusterZnode under rs of removed peer may never be deleted.
* [HBASE-16570](https://issues.apache.org/jira/browse/HBASE-16570): Compute region locality in parallel at startup.
* [HBASE-16810](https://issues.apache.org/jira/browse/HBASE-16810): HBase Balancer throws ArrayIndexOutOfBoundsException when regionservers are in /hbase/draining znode and unloaded.
* [HBASE-16852](https://issues.apache.org/jira/browse/HBASE-16852): TestDefaultCompactSelection failed on branch-1.3.
* [HBASE-17387](https://issues.apache.org/jira/browse/HBASE-17387): Reduce the overhead of exception report in RegionActionResult for multi().
* [HBASE-17850](https://issues.apache.org/jira/browse/HBASE-17850): Backup system repair utility.
* [HBASE-17931](https://issues.apache.org/jira/browse/HBASE-17931): Assign system tables to servers with highest version.
* [HBASE-18083](https://issues.apache.org/jira/browse/HBASE-18083): Make large/small file clean thread number configurable in HFileCleaner.
* [HBASE-18084](https://issues.apache.org/jira/browse/HBASE-18084): Improve CleanerChore to clean from directory which consumes more disk space.
* [HBASE-18164](https://issues.apache.org/jira/browse/HBASE-18164): Much faster locality cost function and candidate generator.
* [HBASE-18212](https://issues.apache.org/jira/browse/HBASE-18212): In Standalone mode with local filesystem HBase logs Warning message:Failed to invoke 'unbuffer' method in class class org.apache.hadoop.fs.FSDataInputStream.
* [HBASE-18808](https://issues.apache.org/jira/browse/HBASE-18808): Ineffective config check in BackupLogCleaner#getDeletableFiles().
* [HBASE-19052](https://issues.apache.org/jira/browse/HBASE-19052): FixedFileTrailer should recognize CellComparatorImpl class in branch-1.x.
* [HBASE-19065](https://issues.apache.org/jira/browse/HBASE-19065): HRegion#bulkLoadHFiles() should wait for concurrent Region#flush() to finish.
* [HBASE-19285](https://issues.apache.org/jira/browse/HBASE-19285): Add per-table latency histograms.
* [HBASE-19393](https://issues.apache.org/jira/browse/HBASE-19393): HTTP 413 FULL head while accessing HBase UI using SSL. .
* [HBASE-19395](https://issues.apache.org/jira/browse/HBASE-19395): [branch-1] TestEndToEndSplitTransaction.testMasterOpsWhileSplitting fails with NPE.
* [HBASE-19421](https://issues.apache.org/jira/browse/HBASE-19421): branch-1 does not compile against Hadoop 3.0.0.
* [HBASE-19934](https://issues.apache.org/jira/browse/HBASE-19934): HBaseSnapshotException when read replicas is enabled and online snapshot is taken after region splitting.
* [HBASE-20008](https://issues.apache.org/jira/browse/HBASE-20008): [backport] NullPointerException when restoring a snapshot after splitting a region.

## Hive

This release provides Hive 1.2.1 and Hive 2.1.0 in addition to the following patches:

**Hive 1.2.1 Apache patches:**

* [HIVE-10697](https://issues.apache.org/jira/browse/HIVE-10697): ObjectInspectorConvertors#UnionConvertor does a faulty conversion.
* [HIVE-11266](https://issues.apache.org/jira/browse/HIVE-11266): count(\*) wrong result based on table statistics for external tables.
* [HIVE-12245](https://issues.apache.org/jira/browse/HIVE-12245): Support column comments for an HBase backed table.
* [HIVE-12315](https://issues.apache.org/jira/browse/HIVE-12315): Fix Vectorized double divide by zero.
* [HIVE-12360](https://issues.apache.org/jira/browse/HIVE-12360): Bad seek in uncompressed ORC with predicate pushdown.
* [HIVE-12378](https://issues.apache.org/jira/browse/HIVE-12378): Exception on HBaseSerDe.serialize binary field.
* [HIVE-12785](https://issues.apache.org/jira/browse/HIVE-12785): View with union type and UDF to the struct is broken.
* [HIVE-14013](https://issues.apache.org/jira/browse/HIVE-14013): Describe table doesn't show unicode properly.
* [HIVE-14205](https://issues.apache.org/jira/browse/HIVE-14205): Hive doesn't support union type with AVRO file format.
* [HIVE-14421](https://issues.apache.org/jira/browse/HIVE-14421): FS.deleteOnExit holds references to \_tmp\_space.db files..
* [HIVE-15563](https://issues.apache.org/jira/browse/HIVE-15563): Ignore Illegal Operation state transition exception in SQLOperation.runQuery to expose real exception.
* [HIVE-15680](https://issues.apache.org/jira/browse/HIVE-15680): Incorrect results when hive.optimize.index.filter=true and same ORC table is referenced twice in query, in MR mode.
* [HIVE-15883](https://issues.apache.org/jira/browse/HIVE-15883): HBase mapped table in Hive insert fail for decimal.
* [HIVE-16232](https://issues.apache.org/jira/browse/HIVE-16232): Support stats computation for columns in QuotedIdentifier .
* [HIVE-16828](https://issues.apache.org/jira/browse/HIVE-16828): With CBO enabled, Query on partitioned views throws IndexOutOfBoundException.
* [HIVE-17013](https://issues.apache.org/jira/browse/HIVE-17013): Delete request with a subquery based on select over a view.
* [HIVE-17063](https://issues.apache.org/jira/browse/HIVE-17063): insert overwrite partition onto a external table fail when drop partition first.
* [HIVE-17259](https://issues.apache.org/jira/browse/HIVE-17259): Hive JDBC does not recognize UNIONTYPE columns.
* [HIVE-17419](https://issues.apache.org/jira/browse/HIVE-17419): ANALYZE TABLE...COMPUTE STATISTICS FOR COLUMNS command shows computed stats for masked tables.
* [HIVE-17530](https://issues.apache.org/jira/browse/HIVE-17530): ClassCastException when converting uniontype.
* [HIVE-17621](https://issues.apache.org/jira/browse/HIVE-17621): Hive-site settings are ignored during HCatInputFormat split-calculation.
* [HIVE-17636](https://issues.apache.org/jira/browse/HIVE-17636): Add multiple\_agg.q test for blobstores.
* [HIVE-17729](https://issues.apache.org/jira/browse/HIVE-17729): Add Database and Explain related blobstore tests.
* [HIVE-17731](https://issues.apache.org/jira/browse/HIVE-17731): add a backward compat option for external users to HIVE-11985.
* [HIVE-17803](https://issues.apache.org/jira/browse/HIVE-17803): With Pig multi-query, 2 HCatStorers writing to the same table will trample each other's outputs.
* [HIVE-17829](https://issues.apache.org/jira/browse/HIVE-17829): ArrayIndexOutOfBoundsException - HBASE-backed tables with Avro schema in Hive2.
* [HIVE-17845](https://issues.apache.org/jira/browse/HIVE-17845): insert fails if target table columns are not lowercase.
* [HIVE-17900](https://issues.apache.org/jira/browse/HIVE-17900): analyze stats on columns triggered by Compactor generates malformed SQL with > 1 partition column.
* [HIVE-18026](https://issues.apache.org/jira/browse/HIVE-18026): Hive webhcat principal configuration optimization.
* [HIVE-18031](https://issues.apache.org/jira/browse/HIVE-18031): Support replication for Alter Database operation.
* [HIVE-18090](https://issues.apache.org/jira/browse/HIVE-18090): acid heartbeat fails when metastore is connected via hadoop credential.
* [HIVE-18189](https://issues.apache.org/jira/browse/HIVE-18189): Hive query returning wrong results when set hive.groupby.orderby.position.alias to true.
* [HIVE-18258](https://issues.apache.org/jira/browse/HIVE-18258): Vectorization: Reduce-Side GROUP BY MERGEPARTIAL with duplicate columns is broken.
* [HIVE-18293](https://issues.apache.org/jira/browse/HIVE-18293): Hive is failing to compact tables contained within a folder that is not owned by identity running HiveMetaStore.
* [HIVE-18327](https://issues.apache.org/jira/browse/HIVE-18327): Remove the unnecessary HiveConf dependency for MiniHiveKdc.
* [HIVE-18341](https://issues.apache.org/jira/browse/HIVE-18341): Add repl load support for adding "raw" namespace for TDE with same encryption keys.
* [HIVE-18352](https://issues.apache.org/jira/browse/HIVE-18352): introduce a METADATAONLY option while doing REPL DUMP to allow integrations of other tools.
* [HIVE-18353](https://issues.apache.org/jira/browse/HIVE-18353): CompactorMR should call jobclient.close() to trigger cleanup (Prabhu Joseph via Thejas Nair).
* [HIVE-18390](https://issues.apache.org/jira/browse/HIVE-18390): IndexOutOfBoundsException when query a partitioned view in ColumnPruner.
* [HIVE-18429](https://issues.apache.org/jira/browse/HIVE-18429): Compaction should handle a case when it produces no output.
* [HIVE-18447](https://issues.apache.org/jira/browse/HIVE-18447): JDBC: Provide a way for JDBC users to pass cookie info via connection string.
* [HIVE-18460](https://issues.apache.org/jira/browse/HIVE-18460): Compactor doesn't pass Table properties to the Orc writer.
* [HIVE-18467](https://issues.apache.org/jira/browse/HIVE-18467): support whole warehouse dump / load + create/drop database events (Anishek Agarwal, reviewed by Sankar Hariappan) .
* [HIVE-18551](https://issues.apache.org/jira/browse/HIVE-18551): Vectorization: VectorMapOperator tries to write too many vector columns for Hybrid Grace.
* [HIVE-18587](https://issues.apache.org/jira/browse/HIVE-18587): insert DML event may attempt to calculate a checksum on directories.
* [HIVE-18613](https://issues.apache.org/jira/browse/HIVE-18613): Extend JsonSerDe to support BINARY type.
* [HIVE-18626](https://issues.apache.org/jira/browse/HIVE-18626): Repl load "with" clause does not pass config to tasks.
* [HIVE-18660](https://issues.apache.org/jira/browse/HIVE-18660): PCR doesn't distinguish between partition and virtual columns.
* [HIVE-18754](https://issues.apache.org/jira/browse/HIVE-18754): REPL STATUS should support 'with' clause.
* [HIVE-18754](https://issues.apache.org/jira/browse/HIVE-18754): REPL STATUS should support 'with' clause.
* [HIVE-18788](https://issues.apache.org/jira/browse/HIVE-18788): Clean up inputs in JDBC PreparedStatement.
* [HIVE-18794](https://issues.apache.org/jira/browse/HIVE-18794): Repl load "with" clause does not pass config to tasks for non-partition tables.
* [HIVE-18808](https://issues.apache.org/jira/browse/HIVE-18808): Make compaction more robust when stats update fails.
* [HIVE-18817](https://issues.apache.org/jira/browse/HIVE-18817): ArrayIndexOutOfBounds exception during read of ACID table..
* [HIVE-18833](https://issues.apache.org/jira/browse/HIVE-18833): Auto Merge fails when "insert into directory as orcfile".
* [HIVE-18879](https://issues.apache.org/jira/browse/HIVE-18879): Disallow embedded element in UDFXPathUtil needs to work if xercesImpl.jar in classpath.
* [HIVE-18907](https://issues.apache.org/jira/browse/HIVE-18907): Create utility to fix acid key index issue from HIVE-18817.

**Hive 2.1.0 Apache Patches:**

* [HIVE-14013](https://issues.apache.org/jira/browse/HIVE-14013): Describe table doesn't show unicode properly.
* [HIVE-14205](https://issues.apache.org/jira/browse/HIVE-14205): Hive doesn't support union type with AVRO file format.
* [HIVE-15563](https://issues.apache.org/jira/browse/HIVE-15563): Ignore Illegal Operation state transition exception in SQLOperation.runQuery to expose real exception.
* [HIVE-15680](https://issues.apache.org/jira/browse/HIVE-15680): Incorrect results when hive.optimize.index.filter=true and same ORC table is referenced twice in query, in MR mode.
* [HIVE-15883](https://issues.apache.org/jira/browse/HIVE-15883): HBase mapped table in Hive insert fail for decimal.
* [HIVE-16757](https://issues.apache.org/jira/browse/HIVE-16757): Remove calls to deprecated AbstractRelNode.getRows.
* [HIVE-16828](https://issues.apache.org/jira/browse/HIVE-16828): With CBO enabled, Query on partitioned views throws IndexOutOfBoundException.
* [HIVE-17063](https://issues.apache.org/jira/browse/HIVE-17063): insert overwrite partition onto a external table fail when drop partition first.
* [HIVE-17259](https://issues.apache.org/jira/browse/HIVE-17259): Hive JDBC does not recognize UNIONTYPE columns.
* [HIVE-17530](https://issues.apache.org/jira/browse/HIVE-17530): ClassCastException when converting uniontype.
* [HIVE-17600](https://issues.apache.org/jira/browse/HIVE-17600): Make OrcFile's enforceBufferSize user-settable..
* [HIVE-17601](https://issues.apache.org/jira/browse/HIVE-17601): improve error handling in LlapServiceDriver.
* [HIVE-17613](https://issues.apache.org/jira/browse/HIVE-17613): remove object pools for short, same-thread allocations.
* [HIVE-17617](https://issues.apache.org/jira/browse/HIVE-17617): Rollup of an empty resultset should contain the grouping of the empty grouping set.
* [HIVE-17621](https://issues.apache.org/jira/browse/HIVE-17621): Hive-site settings are ignored during HCatInputFormat split-calculation.
* [HIVE-17629](https://issues.apache.org/jira/browse/HIVE-17629): CachedStore: Have a whitelist/blacklist config to allow selective caching of tables/partitions and allow read while prewarming.
* [HIVE-17636](https://issues.apache.org/jira/browse/HIVE-17636): Add multiple\_agg.q test for blobstores.
* [HIVE-17702](https://issues.apache.org/jira/browse/HIVE-17702): incorrect isRepeating handling in decimal reader in ORC.
* [HIVE-17729](https://issues.apache.org/jira/browse/HIVE-17729): Add Database and Explain related blobstore tests.
* [HIVE-17731](https://issues.apache.org/jira/browse/HIVE-17731): add a backward compat option for external users to HIVE-11985.
* [HIVE-17803](https://issues.apache.org/jira/browse/HIVE-17803): With Pig multi-query, 2 HCatStorers writing to the same table will trample each other's outputs.
* [HIVE-17845](https://issues.apache.org/jira/browse/HIVE-17845): insert fails if target table columns are not lowercase.
* [HIVE-17900](https://issues.apache.org/jira/browse/HIVE-17900): analyze stats on columns triggered by Compactor generates malformed SQL with > 1 partition column.
* [HIVE-18006](https://issues.apache.org/jira/browse/HIVE-18006): Optimize memory footprint of HLLDenseRegister.
* [HIVE-18026](https://issues.apache.org/jira/browse/HIVE-18026): Hive webhcat principal configuration optimization.
* [HIVE-18031](https://issues.apache.org/jira/browse/HIVE-18031): Support replication for Alter Database operation.
* [HIVE-18090](https://issues.apache.org/jira/browse/HIVE-18090): acid heartbeat fails when metastore is connected via hadoop credential.
* [HIVE-18189](https://issues.apache.org/jira/browse/HIVE-18189): Order by position does not work when cbo is disabled.
* [HIVE-18258](https://issues.apache.org/jira/browse/HIVE-18258): Vectorization: Reduce-Side GROUP BY MERGEPARTIAL with duplicate columns is broken.
* [HIVE-18269](https://issues.apache.org/jira/browse/HIVE-18269): LLAP: Fast llap io with slow processing pipeline can lead to OOM.
* [HIVE-18293](https://issues.apache.org/jira/browse/HIVE-18293): Hive is failing to compact tables contained within a folder that is not owned by identity running HiveMetaStore.
* [HIVE-18318](https://issues.apache.org/jira/browse/HIVE-18318): LLAP record reader should check interrupt even when not blocking.
* [HIVE-18326](https://issues.apache.org/jira/browse/HIVE-18326): LLAP Tez scheduler - only preempt tasks if there's a dependency between them.
* [HIVE-18327](https://issues.apache.org/jira/browse/HIVE-18327): Remove the unnecessary HiveConf dependency for MiniHiveKdc.
* [HIVE-18331](https://issues.apache.org/jira/browse/HIVE-18331): Add relogin when TGT expire and some logging/lambda.
* [HIVE-18341](https://issues.apache.org/jira/browse/HIVE-18341): Add repl load support for adding "raw" namespace for TDE with same encryption keys.
* [HIVE-18352](https://issues.apache.org/jira/browse/HIVE-18352): introduce a METADATAONLY option while doing REPL DUMP to allow integrations of other tools.
* [HIVE-18353](https://issues.apache.org/jira/browse/HIVE-18353): CompactorMR should call jobclient.close() to trigger cleanup.
* [HIVE-18384](https://issues.apache.org/jira/browse/HIVE-18384): ConcurrentModificationException in log4j2.x library.
* [HIVE-18390](https://issues.apache.org/jira/browse/HIVE-18390): IndexOutOfBoundsException when query a partitioned view in ColumnPruner.
* [HIVE-18447](https://issues.apache.org/jira/browse/HIVE-18447): JDBC: Provide a way for JDBC users to pass cookie info via connection string.
* [HIVE-18460](https://issues.apache.org/jira/browse/HIVE-18460): Compactor doesn't pass Table properties to the Orc writer.
* [HIVE-18462](https://issues.apache.org/jira/browse/HIVE-18462): (Explain formatted for queries with map join has columnExprMap with unformatted column name).
* [HIVE-18467](https://issues.apache.org/jira/browse/HIVE-18467): support whole warehouse dump / load + create/drop database events.
* [HIVE-18488](https://issues.apache.org/jira/browse/HIVE-18488): LLAP ORC readers are missing some null checks.
* [HIVE-18490](https://issues.apache.org/jira/browse/HIVE-18490): Query with EXISTS and NOT EXISTS with non-equi predicate can produce wrong result.
* [HIVE-18506](https://issues.apache.org/jira/browse/HIVE-18506): LlapBaseInputFormat - negative array index.
* [HIVE-18517](https://issues.apache.org/jira/browse/HIVE-18517): Vectorization: Fix VectorMapOperator to accept VRBs and check vectorized flag correctly to support LLAP Caching).
* [HIVE-18523](https://issues.apache.org/jira/browse/HIVE-18523): Fix summary row in case there are no inputs.
* [HIVE-18528](https://issues.apache.org/jira/browse/HIVE-18528): Aggregate stats in ObjectStore get wrong result.
* [HIVE-18530](https://issues.apache.org/jira/browse/HIVE-18530): Replication should skip MM table (for now).
* [HIVE-18548](https://issues.apache.org/jira/browse/HIVE-18548): Fix log4j import.
* [HIVE-18551](https://issues.apache.org/jira/browse/HIVE-18551): Vectorization: VectorMapOperator tries to write too many vector columns for Hybrid Grace.
* [HIVE-18577](https://issues.apache.org/jira/browse/HIVE-18577): SemanticAnalyzer.validate has some pointless metastore calls.
* [HIVE-18587](https://issues.apache.org/jira/browse/HIVE-18587): insert DML event may attempt to calculate a checksum on directories.
* [HIVE-18597](https://issues.apache.org/jira/browse/HIVE-18597): LLAP: Always package the log4j2 API jar for org.apache.log4j.
* [HIVE-18613](https://issues.apache.org/jira/browse/HIVE-18613): Extend JsonSerDe to support BINARY type.
* [HIVE-18626](https://issues.apache.org/jira/browse/HIVE-18626): Repl load "with" clause does not pass config to tasks.
* [HIVE-18643](https://issues.apache.org/jira/browse/HIVE-18643): don't check for archived partitions for ACID ops.
* [HIVE-18660](https://issues.apache.org/jira/browse/HIVE-18660): PCR doesn't distinguish between partition and virtual columns .
* [HIVE-18754](https://issues.apache.org/jira/browse/HIVE-18754): REPL STATUS should support 'with' clause.
* [HIVE-18788](https://issues.apache.org/jira/browse/HIVE-18788): Clean up inputs in JDBC PreparedStatement.
* [HIVE-18794](https://issues.apache.org/jira/browse/HIVE-18794): Repl load "with" clause does not pass config to tasks for non-partition tables.
* [HIVE-18808](https://issues.apache.org/jira/browse/HIVE-18808): Make compaction more robust when stats update fails.
* [HIVE-18815](https://issues.apache.org/jira/browse/HIVE-18815): Remove unused feature in HPL/SQL.
* [HIVE-18817](https://issues.apache.org/jira/browse/HIVE-18817): ArrayIndexOutOfBounds exception during read of ACID table..
* [HIVE-18833](https://issues.apache.org/jira/browse/HIVE-18833): Auto Merge fails when "insert into directory as orcfile".
* [HIVE-18879](https://issues.apache.org/jira/browse/HIVE-18879): Disallow embedded element in UDFXPathUtil needs to work if xercesImpl.jar in classpath.
* [HIVE-18944](https://issues.apache.org/jira/browse/HIVE-18944): Groupping sets position is set incorrectly during DPP.

## Kafka

This release provides Kafka 1.0.0 and the following Apache patches.

* [KAFKA-4827](https://issues.apache.org/jira/browse/KAFKA-4827): Kafka connect: error with special characters in connector name.
* [KAFKA-6118](https://issues.apache.org/jira/browse/KAFKA-6118): Transient failure in kafka.api.SaslScramSslEndToEndAuthorizationTest.testTwoConsumersWithDifferentSaslCredentials.
* [KAFKA-6156](https://issues.apache.org/jira/browse/KAFKA-6156): JmxReporter can't handle windows style directory paths.
* [KAFKA-6164](https://issues.apache.org/jira/browse/KAFKA-6164): ClientQuotaManager threads prevent shutdown when encountering an error loading logs.
* [KAFKA-6167](https://issues.apache.org/jira/browse/KAFKA-6167): Timestamp on streams directory contains a colon, which is an illegal character.
* [KAFKA-6179](https://issues.apache.org/jira/browse/KAFKA-6179): RecordQueue.clear() does not clear MinTimestampTracker's maintained list.
* [KAFKA-6185](https://issues.apache.org/jira/browse/KAFKA-6185): Selector memory leak with high likelihood of OOM in case of down conversion.
* [KAFKA-6190](https://issues.apache.org/jira/browse/KAFKA-6190): GlobalKTable never finishes restoring when consuming transactional messages.
* [KAFKA-6210](https://issues.apache.org/jira/browse/KAFKA-6210): IllegalArgumentException if 1.0.0 is used for inter.broker.protocol.version or log.message.format.version.
* [KAFKA-6214](https://issues.apache.org/jira/browse/KAFKA-6214): Using standby replicas with an in memory state store causes Streams to crash.
* [KAFKA-6215](https://issues.apache.org/jira/browse/KAFKA-6215): KafkaStreamsTest fails in trunk.
* [KAFKA-6238](https://issues.apache.org/jira/browse/KAFKA-6238): Issues with protocol version when applying a rolling upgrade to 1.0.0.
* [KAFKA-6260](https://issues.apache.org/jira/browse/KAFKA-6260): AbstractCoordinator not clearly handles NULL Exception.
* [KAFKA-6261](https://issues.apache.org/jira/browse/KAFKA-6261): Request logging throws exception if acks=0.
* [KAFKA-6274](https://issues.apache.org/jira/browse/KAFKA-6274): Improve KTable Source state store auto-generated names.

## Mahout

In HDP-2.3.x and 2.4.x, instead of shipping a specific Apache release of Mahout, we synchronized to a particular revision point on Apache Mahout trunk. This revision point is after the 0.9.0 release, but before the 0.10.0 release. This provides a large number of bug fixes and functional enhancements over the 0.9.0 release, but provides a stable release of the Mahout functionality before the complete conversion to new Spark-based Mahout in 0.10.0.

The revision point chosen for Mahout in HDP 2.3.x and 2.4.x is from the "mahout-0.10.x" branch of Apache Mahout, as of 19 December 2014, revision 0f037cb03e77c096 in GitHub.

In HDP-2.5.x and 2.6.x, we removed the "commons-httpclient" library from Mahout because we view it as an obsolete library with possible security issues., and upgraded the Hadoop-Client in Mahout to version 2.7.3, the same version used in HDP-2.5. As a result:

* Previously compiled Mahout jobs will need to be recompiled in the HDP-2.5 or 2.6 environment.
* There is a small possibility that some Mahout jobs may encounter "ClassNotFoundException" or "could not load class" errors related to "org.apache.commons.httpclient", "net.java.dev.jets3t", or related class name prefixes. If these errors happen, you may consider whether to manually install the needed jars in your classpath for the job, if the risk of security issues in the obsolete library is acceptable in your environment.
* There is an even smaller possibility that some Mahout jobs may encounter crashes in Mahout's hbase-client code calls to the hadoop-common libraries, due to binary compatibility problems. Regrettably, there is no way to resolve this issue except revert to the HDP-2.4.2 version of Mahout, which may have security issues. Again, this should be very unusual, and is unlikely to occur in any given Mahout job suite.

## Oozie

This release provides Oozie 4.2.0 with the following Apache patches.

* [OOZIE-2571](https://issues.apache.org/jira/browse/OOZIE-2571): Add spark.scala.binary.version Maven property so that Scala 2.11 can be used.
* [OOZIE-2606](https://issues.apache.org/jira/browse/OOZIE-2606): Set spark.yarn.jars to fix Spark 2.0 with Oozie.
* [OOZIE-2658](https://issues.apache.org/jira/browse/OOZIE-2658): --driver-class-path can overwrite the classpath in SparkMain.
* [OOZIE-2787](https://issues.apache.org/jira/browse/OOZIE-2787): Oozie distributes application jar twice making the spark job fail.
* [OOZIE-2792](https://issues.apache.org/jira/browse/OOZIE-2792): Hive2 action is not parsing Spark application ID from log file properly when Hive is on Spark.
* [OOZIE-2799](https://issues.apache.org/jira/browse/OOZIE-2799): Setting log location for spark sql on hive.
* [OOZIE-2802](https://issues.apache.org/jira/browse/OOZIE-2802): Spark action failure on Spark 2.1.0 due to duplicate sharelibs.
* [OOZIE-2923](https://issues.apache.org/jira/browse/OOZIE-2923): Improve Spark options parsing.
* [OOZIE-3109](https://issues.apache.org/jira/browse/OOZIE-3109): SCA : Cross-Site Scripting: Reflected.
* [OOZIE-3139](https://issues.apache.org/jira/browse/OOZIE-3139): Oozie validates workflow incorrectly.
* [OOZIE-3167](https://issues.apache.org/jira/browse/OOZIE-3167): Upgrade tomcat version on Oozie 4.3 branch.

## Phoenix

This release provides Phoenix 4.7.0 and the following Apache patches:

* [PHOENIX-1751](https://issues.apache.org/jira/browse/PHOENIX-1751): Perform aggregations, sorting, etc, in the preScannerNext instead of postScannerOpen.
* [PHOENIX-2714](https://issues.apache.org/jira/browse/PHOENIX-2714): Correct byte estimate in BaseResultIterators and expose as interface.
* [PHOENIX-2724](https://issues.apache.org/jira/browse/PHOENIX-2724): Query with large number of guideposts is slower compared to no stats.
* [PHOENIX-2855](https://issues.apache.org/jira/browse/PHOENIX-2855): Workaround Increment TimeRange not being serialized for HBase 1.2.
* [PHOENIX-3023](https://issues.apache.org/jira/browse/PHOENIX-3023): Slow performance when limit queries are executed in parallel by default.
* [PHOENIX-3040](https://issues.apache.org/jira/browse/PHOENIX-3040): Don't use guideposts for executing queries serially.
* [PHOENIX-3112](https://issues.apache.org/jira/browse/PHOENIX-3112): Partial row scan not handled correctly.
* [PHOENIX-3240](https://issues.apache.org/jira/browse/PHOENIX-3240): ClassCastException from Pig loader.
* [PHOENIX-3452](https://issues.apache.org/jira/browse/PHOENIX-3452): NULLS FIRST/NULL LAST should not impact whether GROUP BY is order preserving.
* [PHOENIX-3469](https://issues.apache.org/jira/browse/PHOENIX-3469): Incorrect sort order for DESC primary key for NULLS LAST/NULLS FIRST.
* [PHOENIX-3789](https://issues.apache.org/jira/browse/PHOENIX-3789): Execute cross region index maintenance calls in postBatchMutateIndispensably.
* [PHOENIX-3865](https://issues.apache.org/jira/browse/PHOENIX-3865): IS NULL does not return correct results when first column family not filtered against.
* [PHOENIX-4290](https://issues.apache.org/jira/browse/PHOENIX-4290): Full table scan performed for DELETE with table having immutable indexes.
* [PHOENIX-4373](https://issues.apache.org/jira/browse/PHOENIX-4373): Local index variable length key can have trailing nulls while upserting.
* [PHOENIX-4466](https://issues.apache.org/jira/browse/PHOENIX-4466): java.lang.RuntimeException: response code 500 - Executing a spark job to connect to phoenix query server and load data.
* [PHOENIX-4489](https://issues.apache.org/jira/browse/PHOENIX-4489): HBase Connection leak in Phoenix MR Jobs.
* [PHOENIX-4525](https://issues.apache.org/jira/browse/PHOENIX-4525): Integer overflow in GroupBy execution.
* [PHOENIX-4560](https://issues.apache.org/jira/browse/PHOENIX-4560): ORDER BY with GROUP BY doesn't work if there is WHERE on pk column.
* [PHOENIX-4586](https://issues.apache.org/jira/browse/PHOENIX-4586): UPSERT SELECT doesn't take in account comparison operators for subqueries..
* [PHOENIX-4588](https://issues.apache.org/jira/browse/PHOENIX-4588): Clone expression also if it's children have Determinism.PER\_INVOCATION.

## Pig

This release provides Pig 0.16.0 with the following Apache patches.

* [PIG-5159](https://issues.apache.org/jira/browse/PIG-5159): Fix Pig not saving grunt history.
* [PIG-5175](https://issues.apache.org/jira/browse/PIG-5175): Upgrade jruby to 1.7.26.

## Ranger

This release provides Ranger 0.7.0 and the following Apache patches:

* [RANGER-1805](https://issues.apache.org/jira/browse/RANGER-1805): Code improvement to follow best practices in js.
* [RANGER-1960](https://issues.apache.org/jira/browse/RANGER-1960): Take snapshot's table name into consideration for deletion.
* [RANGER-1982](https://issues.apache.org/jira/browse/RANGER-1982): Error Improvement for Analytics Metric of Ranger Admin and Ranger KMS.
* [RANGER-1984](https://issues.apache.org/jira/browse/RANGER-1984): Hbase audit log records may not show all tags associated with accessed column.
* [RANGER-1988](https://issues.apache.org/jira/browse/RANGER-1988): Fix insecure randomness.
* [RANGER-1990](https://issues.apache.org/jira/browse/RANGER-1990): Add One-way SSL MySQL support in Ranger Admin.
* [RANGER-2006](https://issues.apache.org/jira/browse/RANGER-2006): Fix problems detected by static code analysis in ranger usersync for ldap sync source.
* [RANGER-2008](https://issues.apache.org/jira/browse/RANGER-2008): Policy evaluation is failing for multiline policy conditions.

## Slider

This release provides Slider 0.92.0 with no additional Apache patches.

## Spark

This release provides Spark 2.3.0 and the following Apache patches:

* [SPARK-13587](https://issues.apache.org/jira/browse/SPARK-13587): Support virtualenv in pyspark.
* [SPARK-19964](https://issues.apache.org/jira/browse/SPARK-19964): Avoid reading from remote repos in SparkSubmitSuite.
* [SPARK-22882](https://issues.apache.org/jira/browse/SPARK-22882): ML test for structured streaming: ml.classification.
* [SPARK-22915](https://issues.apache.org/jira/browse/SPARK-22915): Streaming tests for spark.ml.feature, from N to Z.
* [SPARK-23020](https://issues.apache.org/jira/browse/SPARK-23020): Fix another race in the in-process launcher test.
* [SPARK-23040](https://issues.apache.org/jira/browse/SPARK-23040): Returns interruptible iterator for shuffle reader.
* [SPARK-23173](https://issues.apache.org/jira/browse/SPARK-23173): Avoid creating corrupt parquet files when loading data from JSON.
* [SPARK-23264](https://issues.apache.org/jira/browse/SPARK-23264): Fix scala.MatchError in literals.sql.out.
* [SPARK-23288](https://issues.apache.org/jira/browse/SPARK-23288): Fix output metrics with parquet sink.
* [SPARK-23329](https://issues.apache.org/jira/browse/SPARK-23329): Fix documentation of trigonometric functions.
* [SPARK-23406](https://issues.apache.org/jira/browse/SPARK-23406): Enable stream-stream self-joins for branch-2.3.
* [SPARK-23434](https://issues.apache.org/jira/browse/SPARK-23434): Spark should not warn `metadata directory` for a HDFS file path.
* [SPARK-23436](https://issues.apache.org/jira/browse/SPARK-23436): Infer partition as Date only if it can be casted to Date.
* [SPARK-23457](https://issues.apache.org/jira/browse/SPARK-23457): Register task completion listeners first in ParquetFileFormat.
* [SPARK-23462](https://issues.apache.org/jira/browse/SPARK-23462): improve missing field error message in `StructType`.
* [SPARK-23490](https://issues.apache.org/jira/browse/SPARK-23490): Check storage.locationUri with existing table in CreateTable.
* [SPARK-23524](https://issues.apache.org/jira/browse/SPARK-23524): Big local shuffle blocks should not be checked for corruption.
* [SPARK-23525](https://issues.apache.org/jira/browse/SPARK-23525): Support ALTER TABLE CHANGE COLUMN COMMENT for external hive table.
* [SPARK-23553](https://issues.apache.org/jira/browse/SPARK-23553): Tests should not assume the default value of `spark.sql.sources.default`.
* [SPARK-23569](https://issues.apache.org/jira/browse/SPARK-23569): Allow pandas\_udf to work with python3 style type-annotated functions.
* [SPARK-23570](https://issues.apache.org/jira/browse/SPARK-23570): Add Spark 2.3.0 in HiveExternalCatalogVersionsSuite.
* [SPARK-23598](https://issues.apache.org/jira/browse/SPARK-23598): Make methods in BufferedRowIterator public to avoid runtime error for a large query.
* [SPARK-23599](https://issues.apache.org/jira/browse/SPARK-23599): Add a UUID generator from Pseudo-Random Numbers.
* [SPARK-23599](https://issues.apache.org/jira/browse/SPARK-23599): Use RandomUUIDGenerator in Uuid expression.
* [SPARK-23601](https://issues.apache.org/jira/browse/SPARK-23601): Remove .md5 files from release.
* [SPARK-23608](https://issues.apache.org/jira/browse/SPARK-23608): Add synchronization in SHS between attachSparkUI and detachSparkUI functions to avoid concurrent modification issue to Jetty Handlers.
* [SPARK-23614](https://issues.apache.org/jira/browse/SPARK-23614): Fix incorrect reuse exchange when caching is used.
* [SPARK-23623](https://issues.apache.org/jira/browse/SPARK-23623): Avoid concurrent use of cached consumers in CachedKafkaConsumer (branch-2.3).
* [SPARK-23624](https://issues.apache.org/jira/browse/SPARK-23624): Revise doc of method pushFilters in Datasource V2.
* [SPARK-23628](https://issues.apache.org/jira/browse/SPARK-23628): calculateParamLength should not return 1 + num of expressions.
* [SPARK-23630](https://issues.apache.org/jira/browse/SPARK-23630): Allow user's hadoop conf customizations to take effect.
* [SPARK-23635](https://issues.apache.org/jira/browse/SPARK-23635): Spark executor env variable is overwritten by same name AM env variable.
* [SPARK-23637](https://issues.apache.org/jira/browse/SPARK-23637): Yarn might allocate more resource if a same executor is killed multiple times.
* [SPARK-23639](https://issues.apache.org/jira/browse/SPARK-23639): Obtain token before init metastore client in SparkSQL CLI.
* [SPARK-23642](https://issues.apache.org/jira/browse/SPARK-23642): AccumulatorV2 subclass isZero scaladoc fix.
* [SPARK-23644](https://issues.apache.org/jira/browse/SPARK-23644): Use absolute path for REST call in SHS.
* [SPARK-23645](https://issues.apache.org/jira/browse/SPARK-23645): Add docs RE `pandas\_udf` with keyword args.
* [SPARK-23649](https://issues.apache.org/jira/browse/SPARK-23649): Skipping chars disallowed in UTF-8.
* [SPARK-23658](https://issues.apache.org/jira/browse/SPARK-23658): InProcessAppHandle uses the wrong class in getLogger.
* [SPARK-23660](https://issues.apache.org/jira/browse/SPARK-23660): Fix exception in yarn cluster mode when application ended fast.
* [SPARK-23670](https://issues.apache.org/jira/browse/SPARK-23670): Fix memory leak on SparkPlanGraphWrapper.
* [SPARK-23671](https://issues.apache.org/jira/browse/SPARK-23671): Fix condition to enable the SHS thread pool.
* [SPARK-23691](https://issues.apache.org/jira/browse/SPARK-23691): Use sql\_conf util in PySpark tests where possible.
* [SPARK-23695](https://issues.apache.org/jira/browse/SPARK-23695): Fix the error message for Kinesis streaming tests.
* [SPARK-23706](https://issues.apache.org/jira/browse/SPARK-23706): spark.conf.get(value, default=None) should produce None in PySpark.
* [SPARK-23728](https://issues.apache.org/jira/browse/SPARK-23728): Fix ML tests with expected exceptions running streaming tests.
* [SPARK-23729](https://issues.apache.org/jira/browse/SPARK-23729): Respect URI fragment when resolving globs.
* [SPARK-23759](https://issues.apache.org/jira/browse/SPARK-23759): Unable to bind Spark UI to specific host name / IP.
* [SPARK-23760](https://issues.apache.org/jira/browse/SPARK-23760): CodegenContext.withSubExprEliminationExprs should save/restore CSE state correctly.
* [SPARK-23769](https://issues.apache.org/jira/browse/SPARK-23769): Remove comments that unnecessarily disable Scalastyle check.
* [SPARK-23788](https://issues.apache.org/jira/browse/SPARK-23788): Fix race in StreamingQuerySuite.
* [SPARK-23802](https://issues.apache.org/jira/browse/SPARK-23802): PropagateEmptyRelation can leave query plan in unresolved state.
* [SPARK-23806](https://issues.apache.org/jira/browse/SPARK-23806): Broadcast.unpersist can cause fatal exception when used with dynamic allocation.
* [SPARK-23808](https://issues.apache.org/jira/browse/SPARK-23808): Set default Spark session in test-only spark sessions.
* [SPARK-23809](https://issues.apache.org/jira/browse/SPARK-23809): Active SparkSession should be set by getOrCreate.
* [SPARK-23816](https://issues.apache.org/jira/browse/SPARK-23816): Killed tasks should ignore FetchFailures.
* [SPARK-23822](https://issues.apache.org/jira/browse/SPARK-23822): Improve error message for Parquet schema mismatches.
* [SPARK-23823](https://issues.apache.org/jira/browse/SPARK-23823): Keep origin in transformExpression.
* [SPARK-23827](https://issues.apache.org/jira/browse/SPARK-23827): StreamingJoinExec should ensure that input data is partitioned into specific number of partitions.
* [SPARK-23838](https://issues.apache.org/jira/browse/SPARK-23838): Running SQL query is displayed as "completed" in SQL tab.
* [SPARK-23881](https://issues.apache.org/jira/browse/SPARK-23881): Fix flaky test JobCancellationSuite."interruptible iterator of shuffle reader".

## Sqoop

This release provides Sqoop 1.4.6 with no additional Apache patches.

## Storm

This release provides Storm 1.1.1 and the following Apache patches:

* [STORM-2652](https://issues.apache.org/jira/browse/STORM-2652): Exception thrown in JmsSpout open method.
* [STORM-2841](https://issues.apache.org/jira/browse/STORM-2841): testNoAcksIfFlushFails UT fails with NullPointerException.
* [STORM-2854](https://issues.apache.org/jira/browse/STORM-2854): Expose IEventLogger to make event logging pluggable.
* [STORM-2870](https://issues.apache.org/jira/browse/STORM-2870): FileBasedEventLogger leaks non-daemon ExecutorService which prevents process to be finished.
* [STORM-2960](https://issues.apache.org/jira/browse/STORM-2960): Better to stress importance of setting up proper OS account for Storm processes.

## Tez

This release provides Tez 0.7.0 and the following Apache patches:

* [TEZ-1526](https://issues.apache.org/jira/browse/TEZ-1526): LoadingCache for TezTaskID slow for large jobs.

## Zeppelin

This release provides Zeppelin 0.7.3 with no additionalApache patches.

* [ZEPPELIN-3072](https://issues.apache.org/jira/browse/ZEPPELIN-3072): Zeppelin UI becomes slow/unresponsive if there are too many notebooks.
* [ZEPPELIN-3129](https://issues.apache.org/jira/browse/ZEPPELIN-3129): Zepplin UI Doesnt logs out in IE.
* [ZEPPELIN-903](https://issues.apache.org/jira/browse/ZEPPELIN-903): Replace CXF with Jersey2.

## ZooKeeper

This release provides ZooKeeper 3.4.6 and the following Apache patches:

* [ZOOKEEPER-1256](https://issues.apache.org/jira/browse/ZOOKEEPER-1256): ClientPortBindTest is failing on Mac OS X.
* [ZOOKEEPER-1901](https://issues.apache.org/jira/browse/ZOOKEEPER-1901): [JDK8] Sort children for comparison in AsyncOps tests.
* [ZOOKEEPER-2423](https://issues.apache.org/jira/browse/ZOOKEEPER-2423): Upgrade Netty version due to security vulnerability (CVE-2014-3488).
* [ZOOKEEPER-2693](https://issues.apache.org/jira/browse/ZOOKEEPER-2693): DOS attack on wchp/wchc four letter words (4lw).
* [ZOOKEEPER-2726](https://issues.apache.org/jira/browse/ZOOKEEPER-2726): Patch for introduces potential race condition.

Fixed Common Vulnerabilities and Exposures

This section covers all Common Vulnerabilities and Exposures (CVE) that are addressed in this release.

### **​CVE-2017-7676**

|  |
| --- |
| **Summary:** Apache Ranger policy evaluation ignores characters after ‘\*’ wildcard character |
| **Severity:** Critical |
| **Vendor:** Hortonworks |
| **Versions Affected:** HDInsight 3.6 versions including Apache Ranger versions 0.5.x/0.6.x/0.7.0 |
| **Users affected:** Environments that use Ranger policies with characters after ‘\*’ wildcard character – like my\*test, test\*.txt |
| **Impact:** Policy resource matcher ignores characters after ‘\*’ wildcard character, which can result in unintended behavior. |
| **Fix detail:** Ranger policy resource matcher was updated to correctly handle wildcard matches. |
| **Recommended Action:** Upgrade to HDI 3.6 (with Apache Ranger 0.7.1+). |

### **​CVE-2017-7677**

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| **Summary:** Apache Ranger Hive Authorizer should check for RWX permission when external location is specified |

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| **Severity:** Critical |
| **Vendor:** Hortonworks |
| **Versions Affected:** HDInsight 3.6 versions including Apache Ranger versions 0.5.x/0.6.x/0.7.0 |

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| **Users affected:** Environments that use external location for hive tables |
| **Impact:** In environments that use external location for hive tables, Apache Ranger Hive Authorizer should check for RWX permission for the external location specified for create table. |

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| **Fix detail:** Ranger Hive Authorizer was updated to correctly handle permission check with external location. |

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| **Recommended Action:** Users should upgrade to HDI 3.6 (with Apache Ranger 0.7.1+). |

### **​CVE-2017-9799**

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| **Summary:** Potential execution of code as the wrong user in Apache Storm |
| **Severity:** Important |
| **Vendor:** Hortonworks |
| **Versions Affected:** HDP 2.4.0, HDP-2.5.0, HDP-2.6.0 |
| **Users affected:** Users who use Storm in secure mode and are using blobstore to distribute topology based artifacts or using the blobstore to distribute any topology resources. |
| **Impact:** Under some situations and configurations of storm it is theoretically possible for the owner of a topology to trick the supervisor to launch a worker as a different, non-root, user. In the worst case, this could lead to secure credentials of the other user being compromised. This vulnerability only applies to Apache Storm installations with security enabled. |
| **Mitigation:** Upgrade to HDP-2.6.2.1 as there are currently no workarounds. |

### **​CVE-2016-4970**

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| **Summary:** handler/ssl/OpenSslEngine.java in Netty 4.0.x before 4.0.37.Final and 4.1.x before 4.1.1.Final allows remote attackers to cause a denial of service (infinite loop) |
| **Severity:**Moderate |
| **Vendor:** Hortonworks |
| **Versions Affected:** HDP 2.x.x since 2.3.x |
| **Users Affected:** All users that use HDFS. |
| **Impact:** Impact is low as Hortonworks does not use OpenSslEngine.java directly in Hadoop codebase. |
| **Recommended Action:** Upgrade to HDP 2.6.3. |

### **​CVE-2016-8746**

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| **Summary:** Apache Ranger path matching issue in policy evaluation |
| **Severity:** Normal |
| **Vendor:**Hortonworks |
| **Versions Affected:** All HDP 2.5 versions including Apache Ranger versions 0.6.0/0.6.1/0.6.2 |
| **Users affected:** All users of the ranger policy admin tool. |
| **Impact:** Ranger policy engine incorrectly matches paths in certain conditions when a policy contains wildcards and recursive flags. |
| **Fix detail:**Fixed policy evaluation logic |
| **Recommended Action:** Users should upgrade to HDP 2.5.4+ (with Apache Ranger 0.6.3+) or HDP 2.6+ (with Apache Ranger 0.7.0+) |

### **​CVE-2016-8751**

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| **Summary:** Apache Ranger stored cross site scripting issue |
| **Severity:** Normal |
| **Vendor:** Hortonworks |
| **Versions Affected:** All HDP 2.3/2.4/2.5 versions including Apache Ranger versions 0.5.x/0.6.0/0.6.1/0.6.2 |
| **Users affected:** All users of the ranger policy admin tool. |
| **Impact:** Apache Ranger is vulnerable to a Stored Cross-Site Scripting when entering custom policy conditions. Admin users can store some arbitrary javascript code execute when normal users login and access policies. |
| **Fix detail:** Added logic to sanitize the user input. |
| **Recommended Action:** Users should upgrade to HDP 2.5.4+ (with Apache Ranger 0.6.3+) or HDP 2.6+ (with Apache Ranger 0.7.0+) |

# Fixed Issues for Support

Fixed issues represent selected issues that were previously logged via Hortonworks Support, but are now addressed in the current release. These issues may have been reported in previous versions within the Known Issues section; meaning they were reported by customers or identified by Hortonworks Quality Engineering team.

**Incorrect Results**

| **Hortonworks Bug ID** | **Apache JIRA** | **Summary** |
| --- | --- | --- |
| BUG-100019 | [YARN-8145](https://issues.apache.org/jira/browse/YARN-8145) | yarn rmadmin -getGroups doesn't return updated groups for user |
| BUG-100058 | [PHOENIX-2645](https://issues.apache.org/jira/browse/PHOENIX-2645) | Wildcard characters do not match newline characters |
| BUG-100266 | [PHOENIX-3521](https://issues.apache.org/jira/browse/PHOENIX-3521), [PHOENIX-4190](https://issues.apache.org/jira/browse/PHOENIX-4190) | Results wrong with local indexes |
| BUG-88774 | [HIVE-17617](https://issues.apache.org/jira/browse/HIVE-17617), [HIVE-18413](https://issues.apache.org/jira/browse/HIVE-18413), [HIVE-18523](https://issues.apache.org/jira/browse/HIVE-18523) | query36 failing, row count mismatch |
| BUG-89765 | [HIVE-17702](https://issues.apache.org/jira/browse/HIVE-17702) | incorrect isRepeating handling in decimal reader in ORC |
| BUG-92293 | [HADOOP-15042](https://issues.apache.org/jira/browse/HADOOP-15042) | Azure PageBlobInputStream.skip() can return negative value when numberOfPagesRemaining is 0 |
| BUG-92345 | [ATLAS-2285](https://issues.apache.org/jira/browse/ATLAS-2285) | UI : Renamed saved search with date attribute. |
| BUG-92563 | [HIVE-17495](https://issues.apache.org/jira/browse/HIVE-17495), [HIVE-18528](https://issues.apache.org/jira/browse/HIVE-18528) | Aggregate stats in ObjectStore get wrong result |
| BUG-92957 | [HIVE-11266](https://issues.apache.org/jira/browse/HIVE-11266) | count(\*) wrong result based on table statistics for external tables |
| BUG-93097 | [RANGER-1944](https://issues.apache.org/jira/browse/RANGER-1944) | Action filter for Admin Audit is not working |
| BUG-93335 | [HIVE-12315](https://issues.apache.org/jira/browse/HIVE-12315) | vectorization\_short\_regress.q has a wrong result issue for a double calculation |
| BUG-93415 | [HIVE-18258](https://issues.apache.org/jira/browse/HIVE-18258), [HIVE-18310](https://issues.apache.org/jira/browse/HIVE-18310) | Vectorization: Reduce-Side GROUP BY MERGEPARTIAL with duplicate columns is broken |
| BUG-93939 | [ATLAS-2294](https://issues.apache.org/jira/browse/ATLAS-2294) | Extra parameter "description" added when creating a type |
| BUG-94007 | [PHOENIX-1751](https://issues.apache.org/jira/browse/PHOENIX-1751), [PHOENIX-3112](https://issues.apache.org/jira/browse/PHOENIX-3112) | Phoenix Queries returns Null values due to HBase Partial rows |
| BUG-94266 | [HIVE-12505](https://issues.apache.org/jira/browse/HIVE-12505) | Insert overwrite in same encrypted zone silently fails to remove some existing files |
| BUG-94414 | [HIVE-15680](https://issues.apache.org/jira/browse/HIVE-15680) | Incorrect results when hive.optimize.index.filter=true and same ORC table is referenced twice in query |
| BUG-95048 | [HIVE-18490](https://issues.apache.org/jira/browse/HIVE-18490) | Query with EXISTS and NOT EXISTS with non-equi predicate can produce wrong result |
| BUG-95053 | [PHOENIX-3865](https://issues.apache.org/jira/browse/PHOENIX-3865) | IS NULL does not return correct results when first column family not filtered against |
| BUG-95476 | [RANGER-1966](https://issues.apache.org/jira/browse/RANGER-1966) | Policy engine initialization does not create context enrichers in some cases |
| BUG-95566 | [SPARK-23281](https://issues.apache.org/jira/browse/SPARK-23281) | Query produces results in incorrect order when a composite order by clause refers to both original columns and aliases |
| BUG-95907 | [PHOENIX-3451](https://issues.apache.org/jira/browse/PHOENIX-3451), [PHOENIX-3452](https://issues.apache.org/jira/browse/PHOENIX-3452), [PHOENIX-3469](https://issues.apache.org/jira/browse/PHOENIX-3469), [PHOENIX-4560](https://issues.apache.org/jira/browse/PHOENIX-4560) | Fixing issues with ORDER BY ASC when query has aggregation |
| BUG-96389 | [PHOENIX-4586](https://issues.apache.org/jira/browse/PHOENIX-4586) | UPSERT SELECT doesn't take in account comparison operators for subqueries. |
| BUG-96602 | [HIVE-18660](https://issues.apache.org/jira/browse/HIVE-18660) | PCR doesn't distinguish between partition and virtual columns |
| BUG-97686 | [ATLAS-2468](https://issues.apache.org/jira/browse/ATLAS-2468) | [Basic Search] Issue with OR cases when NEQ is used with numeric types |
| BUG-97708 | [HIVE-18817](https://issues.apache.org/jira/browse/HIVE-18817) | ArrayIndexOutOfBounds exception during read of ACID table. |
| BUG-97864 | [HIVE-18833](https://issues.apache.org/jira/browse/HIVE-18833) | Auto Merge fails when "insert into directory as orcfile" |
| BUG-97889 | [RANGER-2008](https://issues.apache.org/jira/browse/RANGER-2008) | Policy evaluation is failing for multiline policy conditions. |
| BUG-98655 | [RANGER-2066](https://issues.apache.org/jira/browse/RANGER-2066) | Hbase column family access is authorized by a tagged column in the column family |
| BUG-99883 | [HIVE-19073](https://issues.apache.org/jira/browse/HIVE-19073), [HIVE-19145](https://issues.apache.org/jira/browse/HIVE-19145) | StatsOptimizer may mangle constant columns |

**Other**

| **Hortonworks Bug ID** | **Apache JIRA** | **Summary** |
| --- | --- | --- |
| BUG-100267 | [HBASE-17170](https://issues.apache.org/jira/browse/HBASE-17170) | HBase is also retrying DoNotRetryIOException because of class loader differences. |
| BUG-92367 | [YARN-7558](https://issues.apache.org/jira/browse/YARN-7558) | "yarn logs" command fails to get logs for running containers if UI authentication is enabled. |
| BUG-93159 | [OOZIE-3139](https://issues.apache.org/jira/browse/OOZIE-3139) | Oozie validates workflow incorrectly |
| BUG-93936 | [ATLAS-2289](https://issues.apache.org/jira/browse/ATLAS-2289) | Embedded kafka/zookeeper server start/stop code to be moved out of KafkaNotification implementation |
| BUG-93942 | [ATLAS-2312](https://issues.apache.org/jira/browse/ATLAS-2312) | Use ThreadLocal DateFormat objects to avoid simultaneous use from multiple threads |
| BUG-93946 | [ATLAS-2319](https://issues.apache.org/jira/browse/ATLAS-2319) | UI : Deleting a tag which at 25+ position in the tag list in both Flat and Tree structure needs a refresh to remove the tag from the list. |
| BUG-94618 | [YARN-5037](https://issues.apache.org/jira/browse/YARN-5037), [YARN-7274](https://issues.apache.org/jira/browse/YARN-7274) | Ability to disable elasticity at leaf queue level |
| BUG-94901 | [HBASE-19285](https://issues.apache.org/jira/browse/HBASE-19285) | Add per-table latency histograms |
| BUG-95259 | [HADOOP-15185](https://issues.apache.org/jira/browse/HADOOP-15185), [HADOOP-15186](https://issues.apache.org/jira/browse/HADOOP-15186) | Update adls connector to use the current version of ADLS SDK |
| BUG-95619 | [HIVE-18551](https://issues.apache.org/jira/browse/HIVE-18551) | Vectorization: VectorMapOperator tries to write too many vector columns for Hybrid Grace |
| BUG-97223 | [SPARK-23434](https://issues.apache.org/jira/browse/SPARK-23434) | Spark should not warn `metadata directory` for a HDFS file path |

**Performance**

| **Hortonworks Bug ID** | **Apache JIRA** | **Summary** |
| --- | --- | --- |
| BUG-83282 | [HBASE-13376](https://issues.apache.org/jira/browse/HBASE-13376), [HBASE-14473](https://issues.apache.org/jira/browse/HBASE-14473), [HBASE-15210](https://issues.apache.org/jira/browse/HBASE-15210), [HBASE-15515](https://issues.apache.org/jira/browse/HBASE-15515), [HBASE-16570](https://issues.apache.org/jira/browse/HBASE-16570), [HBASE-16810](https://issues.apache.org/jira/browse/HBASE-16810), [HBASE-18164](https://issues.apache.org/jira/browse/HBASE-18164) | Fast locality computation in balancer |
| BUG-91300 | [HBASE-17387](https://issues.apache.org/jira/browse/HBASE-17387) | Reduce the overhead of exception report in RegionActionResult for multi() |
| BUG-91804 | [TEZ-1526](https://issues.apache.org/jira/browse/TEZ-1526) | LoadingCache for TezTaskID slow for large jobs |
| BUG-92760 | [ACCUMULO-4578](https://issues.apache.org/jira/browse/ACCUMULO-4578) | Cancel compaction FATE operation does not release namespace lock |
| BUG-93577 | [RANGER-1938](https://issues.apache.org/jira/browse/RANGER-1938) | Solr for Audit setup doesn't use DocValues effectively |
| BUG-93910 | [HIVE-18293](https://issues.apache.org/jira/browse/HIVE-18293) | Hive is failing to compact tables contained within a folder that is not owned by identity running HiveMetaStore |
| BUG-94345 | [HIVE-18429](https://issues.apache.org/jira/browse/HIVE-18429) | Compaction should handle a case when it produces no output |
| BUG-94381 | [HADOOP-13227](https://issues.apache.org/jira/browse/HADOOP-13227), [HDFS-13054](https://issues.apache.org/jira/browse/HDFS-13054) | Handling RequestHedgingProxyProvider RetryAction order: FAIL < RETRY < FAILOVER\_AND\_RETRY. |
| BUG-94432 | [HIVE-18353](https://issues.apache.org/jira/browse/HIVE-18353) | CompactorMR should call jobclient.close() to trigger cleanup |
| BUG-94869 | [PHOENIX-4290](https://issues.apache.org/jira/browse/PHOENIX-4290), [PHOENIX-4373](https://issues.apache.org/jira/browse/PHOENIX-4373) | Requested row out of range for Get on HRegion for local indexed salted phoenix table. |
| BUG-94928 | [HDFS-11078](https://issues.apache.org/jira/browse/HDFS-11078) | Fix NPE in LazyPersistFileScrubber |
| BUG-94964 | [HIVE-18269](https://issues.apache.org/jira/browse/HIVE-18269), [HIVE-18318](https://issues.apache.org/jira/browse/HIVE-18318), [HIVE-18326](https://issues.apache.org/jira/browse/HIVE-18326) | Multiple LLAP fixes |
| BUG-95669 | [HIVE-18577](https://issues.apache.org/jira/browse/HIVE-18577), [HIVE-18643](https://issues.apache.org/jira/browse/HIVE-18643) | When run update/delete query on ACID partitioned table, HS2 read all each partitions. |
| BUG-96390 | [HDFS-10453](https://issues.apache.org/jira/browse/HDFS-10453) | ReplicationMonitor thread could stuck for long time due to the race between replication and delete of same file in a large cluster. |
| BUG-96625 | [HIVE-16110](https://issues.apache.org/jira/browse/HIVE-16110) | Revert of "Vectorization: Support 2 Value CASE WHEN instead of fall back to VectorUDFAdaptor" |
| BUG-97109 | [HIVE-16757](https://issues.apache.org/jira/browse/HIVE-16757) | Use of deprecated getRows() instead of new estimateRowCount(RelMetadataQuery..) has serious performance impact |
| BUG-97110 | [PHOENIX-3789](https://issues.apache.org/jira/browse/PHOENIX-3789) | Execute cross region index maintenance calls in postBatchMutateIndispensably |
| BUG-98833 | [YARN-6797](https://issues.apache.org/jira/browse/YARN-6797) | TimelineWriter does not fully consume the POST response |
| BUG-98931 | [ATLAS-2491](https://issues.apache.org/jira/browse/ATLAS-2491) | Update Hive hook to use Atlas v2 notifications |

**Potential Data Loss**

| **Hortonworks Bug ID** | **Apache JIRA** | **Summary** |
| --- | --- | --- |
| BUG-95613 | [HBASE-18808](https://issues.apache.org/jira/browse/HBASE-18808) | Ineffective config check in BackupLogCleaner#getDeletableFiles() |
| BUG-97051 | [HIVE-17403](https://issues.apache.org/jira/browse/HIVE-17403) | Fail concatenation for unmanaged and transactional tables |
| BUG-97787 | [HIVE-18460](https://issues.apache.org/jira/browse/HIVE-18460) | Compactor doesn't pass Table properties to the Orc writer |
| BUG-97788 | [HIVE-18613](https://issues.apache.org/jira/browse/HIVE-18613) | Extend JsonSerDe to support BINARY type |

**Query Failure**

| **Hortonworks Bug ID** | **Apache JIRA** | **Summary** |
| --- | --- | --- |
| BUG-100180 | [CALCITE-2232](https://issues.apache.org/jira/browse/CALCITE-2232) | Assertion error on AggregatePullUpConstantsRule while adjusting Aggregate indices |
| BUG-100422 | [HIVE-19085](https://issues.apache.org/jira/browse/HIVE-19085) | FastHiveDecimal abs(0) sets sign to +ve |
| BUG-100834 | [PHOENIX-4658](https://issues.apache.org/jira/browse/PHOENIX-4658) | IllegalStateException: requestSeek cannot be called on ReversedKeyValueHeap |
| BUG-102078 | [HIVE-17978](https://issues.apache.org/jira/browse/HIVE-17978) | TPCDS queries 58 and 83 generate exceptions in vectorization. |
| BUG-92483 | [HIVE-17900](https://issues.apache.org/jira/browse/HIVE-17900) | analyze stats on columns triggered by Compactor generates malformed SQL with > 1 partition column |
| BUG-93135 | [HIVE-15874](https://issues.apache.org/jira/browse/HIVE-15874), [HIVE-18189](https://issues.apache.org/jira/browse/HIVE-18189) | Hive query returning wrong results when set hive.groupby.orderby.position.alias to true |
| BUG-93136 | [HIVE-18189](https://issues.apache.org/jira/browse/HIVE-18189) | Order by position does not work when cbo is disabled |
| BUG-93595 | [HIVE-12378](https://issues.apache.org/jira/browse/HIVE-12378), [HIVE-15883](https://issues.apache.org/jira/browse/HIVE-15883) | HBase mapped table in Hive insert fail for decimal and binary columns |
| BUG-94007 | [PHOENIX-1751](https://issues.apache.org/jira/browse/PHOENIX-1751), [PHOENIX-3112](https://issues.apache.org/jira/browse/PHOENIX-3112) | Phoenix Queries returns Null values due to HBase Partial rows |
| BUG-94144 | [HIVE-17063](https://issues.apache.org/jira/browse/HIVE-17063) | insert overwrite partition onto a external table fail when drop partition first |
| BUG-94280 | [HIVE-12785](https://issues.apache.org/jira/browse/HIVE-12785) | View with union type and UDF to `cast` the struct is broken |
| BUG-94505 | [PHOENIX-4525](https://issues.apache.org/jira/browse/PHOENIX-4525) | Integer overflow in GroupBy execution |
| BUG-95618 | [HIVE-18506](https://issues.apache.org/jira/browse/HIVE-18506) | LlapBaseInputFormat - negative array index |
| BUG-95644 | [HIVE-9152](https://issues.apache.org/jira/browse/HIVE-9152) | CombineHiveInputFormat: Hive query is failing in Tez with java.lang.IllegalArgumentException exception |
| BUG-96762 | [PHOENIX-4588](https://issues.apache.org/jira/browse/PHOENIX-4588) | Clone expression also if it's children have Determinism.PER\_INVOCATION |
| BUG-97145 | [HIVE-12245](https://issues.apache.org/jira/browse/HIVE-12245), [HIVE-17829](https://issues.apache.org/jira/browse/HIVE-17829) | Support column comments for an HBase backed table |
| BUG-97741 | [HIVE-18944](https://issues.apache.org/jira/browse/HIVE-18944) | Groupping sets position is set incorrectly during DPP |
| BUG-98082 | [HIVE-18597](https://issues.apache.org/jira/browse/HIVE-18597) | LLAP: Always package the log4j2 API jar for org.apache.log4j |
| BUG-99849 | N/A | Create a new table from a file wizard tries to use default database |

**Security**

| **Hortonworks Bug ID** | **Apache JIRA** | **Summary** |
| --- | --- | --- |
| BUG-100436 | [RANGER-2060](https://issues.apache.org/jira/browse/RANGER-2060) | Knox proxy with knox-sso is not working for ranger |
| BUG-101038 | [SPARK-24062](https://issues.apache.org/jira/browse/SPARK-24062) | Zeppelin %Spark interpreter "Connection refused" error, "A secret key must be specified..." error in HiveThriftServer |
| BUG-101359 | [ACCUMULO-4056](https://issues.apache.org/jira/browse/ACCUMULO-4056) | Update version of commons-collection to 3.2.2 when released |
| BUG-54240 | [HIVE-18879](https://issues.apache.org/jira/browse/HIVE-18879) | Disallow embedded element in UDFXPathUtil needs to work if xercesImpl.jar in classpath |
| BUG-79059 | [OOZIE-3109](https://issues.apache.org/jira/browse/OOZIE-3109) | Escape log-streaming's HTML-specific characters |
| BUG-90041 | [OOZIE-2723](https://issues.apache.org/jira/browse/OOZIE-2723) | JSON.org license is now CatX |
| BUG-93754 | [RANGER-1943](https://issues.apache.org/jira/browse/RANGER-1943) | Ranger Solr authorization is skipped when collection is empty or null |
| BUG-93804 | [HIVE-17419](https://issues.apache.org/jira/browse/HIVE-17419) | ANALYZE TABLE...COMPUTE STATISTICS FOR COLUMNS command shows computed stats for masked tables |
| BUG-94276 | [ZEPPELIN-3129](https://issues.apache.org/jira/browse/ZEPPELIN-3129) | Zeppelin UI does not log out in IE |
| BUG-95349 | [ZOOKEEPER-1256](https://issues.apache.org/jira/browse/ZOOKEEPER-1256), [ZOOKEEPER-1901](https://issues.apache.org/jira/browse/ZOOKEEPER-1901) | Upgrade netty |
| BUG-95483 | N/A | Fix for CVE-2017-15713 |
| BUG-95646 | [OOZIE-3167](https://issues.apache.org/jira/browse/OOZIE-3167) | Upgrade tomcat version on Oozie 4.3 branch |
| BUG-95823 | N/A | Knox: Upgrade Beanutils |
| BUG-95908 | [RANGER-1960](https://issues.apache.org/jira/browse/RANGER-1960) | HBase auth does not take table namespace into consideration for deleting snapshot |
| BUG-96191 | [FALCON-2322](https://issues.apache.org/jira/browse/FALCON-2322), [FALCON-2323](https://issues.apache.org/jira/browse/FALCON-2323) | Upgrade Jackson and Spring versions to avoid security vulnerabilities |
| BUG-96502 | [RANGER-1990](https://issues.apache.org/jira/browse/RANGER-1990) | Add One-way SSL MySQL support in Ranger Admin |
| BUG-96712 | [FLUME-3194](https://issues.apache.org/jira/browse/FLUME-3194) | upgrade derby to the latest (1.14.1.0) version |
| BUG-96713 | [FLUME-2678](https://issues.apache.org/jira/browse/FLUME-2678) | Upgrade xalan to 2.7.2 to take care of CVE-2014-0107 vulnerability |
| BUG-96714 | [FLUME-2050](https://issues.apache.org/jira/browse/FLUME-2050) | Upgrade to log4j2 (when GA) |
| BUG-96737 | N/A | Use java io filesystem methods to access local files |
| BUG-96925 | N/A | Upgrade Tomcat from 6.0.48 to 6.0.53 in Hadoop |
| BUG-96977 | [FLUME-3132](https://issues.apache.org/jira/browse/FLUME-3132) | Upgrade tomcat jasper library dependencies |
| BUG-97022 | [HADOOP-14799](https://issues.apache.org/jira/browse/HADOOP-14799), [HADOOP-14903](https://issues.apache.org/jira/browse/HADOOP-14903), [HADOOP-15265](https://issues.apache.org/jira/browse/HADOOP-15265) | Upgrading Nimbus-JOSE-JWT library with version above 4.39 |
| BUG-97101 | [RANGER-1988](https://issues.apache.org/jira/browse/RANGER-1988) | Fix insecure randomness |
| BUG-97178 | [ATLAS-2467](https://issues.apache.org/jira/browse/ATLAS-2467) | Dependency upgrade for Spring and nimbus-jose-jwt |
| BUG-97180 | N/A | Upgrade Nimbus-jose-jwt |
| BUG-98038 | [HIVE-18788](https://issues.apache.org/jira/browse/HIVE-18788) | Clean up inputs in JDBC PreparedStatement |
| BUG-98353 | [HADOOP-13707](https://issues.apache.org/jira/browse/HADOOP-13707) | Revert of "If kerberos is enabled while HTTP SPNEGO is not configured, some links cannot be accessed" |
| BUG-98372 | [HBASE-13848](https://issues.apache.org/jira/browse/HBASE-13848) | Access InfoServer SSL passwords through Credential Provder API |
| BUG-98385 | [ATLAS-2500](https://issues.apache.org/jira/browse/ATLAS-2500) | Add additional headers to Atlas response. |
| BUG-98564 | [HADOOP-14651](https://issues.apache.org/jira/browse/HADOOP-14651) | Update okhttp version to 2.7.5 |
| BUG-99440 | [RANGER-2045](https://issues.apache.org/jira/browse/RANGER-2045) | Hive table columns with no explicit allow policy are listed with 'desc table' command |
| BUG-99803 | N/A | Oozie should disable HBase dynamic class loading |

**Stability**

| **Hortonworks Bug ID** | **Apache JIRA** | **Summary** |
| --- | --- | --- |
| BUG-100040 | [ATLAS-2536](https://issues.apache.org/jira/browse/ATLAS-2536) | NPE in Atlas Hive Hook |
| BUG-100057 | [HIVE-19251](https://issues.apache.org/jira/browse/HIVE-19251) | ObjectStore.getNextNotification with LIMIT should use less memory |
| BUG-100072 | [HIVE-19130](https://issues.apache.org/jira/browse/HIVE-19130) | NPE is thrown when REPL LOAD applied drop partition event. |
| BUG-100073 | N/A | too many close\_wait connection from hiveserver to data node |
| BUG-100319 | [HIVE-19248](https://issues.apache.org/jira/browse/HIVE-19248) | REPL LOAD doesn't throw error if file copy fails. |
| BUG-100352 | N/A | CLONE - RM purging logic scans /registry znode too frequently |
| BUG-100427 | [HIVE-19249](https://issues.apache.org/jira/browse/HIVE-19249) | Replication: WITH clause is not passing the configuration to Task correctly in all cases |
| BUG-100430 | [HIVE-14483](https://issues.apache.org/jira/browse/HIVE-14483) | java.lang.ArrayIndexOutOfBoundsException org.apache.orc.impl.TreeReaderFactory$BytesColumnVectorUtil.commonReadByteArrays |
| BUG-100432 | [HIVE-19219](https://issues.apache.org/jira/browse/HIVE-19219) | Incremental REPL DUMP should throw error if requested events are cleaned-up. |
| BUG-100448 | [SPARK-23637](https://issues.apache.org/jira/browse/SPARK-23637), [SPARK-23802](https://issues.apache.org/jira/browse/SPARK-23802), [SPARK-23809](https://issues.apache.org/jira/browse/SPARK-23809), [SPARK-23816](https://issues.apache.org/jira/browse/SPARK-23816), [SPARK-23822](https://issues.apache.org/jira/browse/SPARK-23822), [SPARK-23823](https://issues.apache.org/jira/browse/SPARK-23823), [SPARK-23838](https://issues.apache.org/jira/browse/SPARK-23838), [SPARK-23881](https://issues.apache.org/jira/browse/SPARK-23881) | Update Spark2 to 2.3.0+ (4/11) |
| BUG-100740 | [HIVE-16107](https://issues.apache.org/jira/browse/HIVE-16107) | JDBC: HttpClient should retry one more time on NoHttpResponseException |
| BUG-100810 | [HIVE-19054](https://issues.apache.org/jira/browse/HIVE-19054) | Hive Functions replication fails |
| BUG-100937 | [MAPREDUCE-6889](https://issues.apache.org/jira/browse/MAPREDUCE-6889) | Add Job#close API to shutdown MR client services. |
| BUG-101065 | [ATLAS-2587](https://issues.apache.org/jira/browse/ATLAS-2587) | Set read ACL for /apache\_atlas/active\_server\_info znode in HA for Knox proxy to read. |
| BUG-101093 | [STORM-2993](https://issues.apache.org/jira/browse/STORM-2993) | Storm HDFS bolt throws ClosedChannelException when Time rotation policy is used |
| BUG-101181 | N/A | PhoenixStorageHandler doesn't handle AND in predicate correctly |
| BUG-101266 | [PHOENIX-4635](https://issues.apache.org/jira/browse/PHOENIX-4635) | HBase Connection leak in org.apache.phoenix.hive.mapreduce.PhoenixInputFormat |
| BUG-101458 | [HIVE-11464](https://issues.apache.org/jira/browse/HIVE-11464) | lineage info missing if there are multiple outputs |
| BUG-101485 | N/A | hive metastore thrift api is slow and causing client timeout |
| BUG-101628 | [HIVE-19331](https://issues.apache.org/jira/browse/HIVE-19331) | Hive incremental replication to cloud failed. |
| BUG-102048 | [HIVE-19381](https://issues.apache.org/jira/browse/HIVE-19381) | Hive Function Replication to cloud fails with FunctionTask |
| BUG-102064 | N/A | Hive Replication [ onprem to onprem ] tests failed in ReplCopyTask |
| BUG-102137 | [HIVE-19423](https://issues.apache.org/jira/browse/HIVE-19423) | Hive Replication [ Onprem to Cloud ] tests failed in ReplCopyTask |
| BUG-102305 | [HIVE-19430](https://issues.apache.org/jira/browse/HIVE-19430) | HS2 and hive metastore OOM dumps |
| BUG-102361 | N/A | multiple insert results in single insert replicated to target hive cluster ( onprem - s3 ) |
| BUG-87624 | N/A | Enabling storm event logging causes workers to continuously die |
| BUG-88929 | [HBASE-15615](https://issues.apache.org/jira/browse/HBASE-15615) | Wrong sleep time when RegionServerCallable need retry |
| BUG-89628 | [HIVE-17613](https://issues.apache.org/jira/browse/HIVE-17613) | remove object pools for short, same-thread allocations |
| BUG-89813 | N/A | SCA : Code Correctness: Non-Synchronized Method Overrides Synchronized Method |
| BUG-90437 | [ZEPPELIN-3072](https://issues.apache.org/jira/browse/ZEPPELIN-3072) | Zeppelin UI becomes slow/unresponsive if there are too many notebooks |
| BUG-90640 | [HBASE-19065](https://issues.apache.org/jira/browse/HBASE-19065) | HRegion#bulkLoadHFiles() should wait for concurrent Region#flush() to finish |
| BUG-91202 | [HIVE-17013](https://issues.apache.org/jira/browse/HIVE-17013) | Delete request with a subquery based on select over a view |
| BUG-91350 | [KNOX-1108](https://issues.apache.org/jira/browse/KNOX-1108) | NiFiHaDispatch not failing over |
| BUG-92054 | [HIVE-13120](https://issues.apache.org/jira/browse/HIVE-13120) | propagate doAs when generating ORC splits |
| BUG-92373 | [FALCON-2314](https://issues.apache.org/jira/browse/FALCON-2314) | Bump TestNG version to 6.13.1 to avoid BeanShell dependency |
| BUG-92381 | N/A | testContainerLogsWithNewAPI and testContainerLogsWithOldAPI UT fails |
| BUG-92389 | [STORM-2841](https://issues.apache.org/jira/browse/STORM-2841) | testNoAcksIfFlushFails UT fails with NullPointerException |
| BUG-92586 | [SPARK-17920](https://issues.apache.org/jira/browse/SPARK-17920), [SPARK-20694](https://issues.apache.org/jira/browse/SPARK-20694), [SPARK-21642](https://issues.apache.org/jira/browse/SPARK-21642), [SPARK-22162](https://issues.apache.org/jira/browse/SPARK-22162), [SPARK-22289](https://issues.apache.org/jira/browse/SPARK-22289), [SPARK-22373](https://issues.apache.org/jira/browse/SPARK-22373), [SPARK-22495](https://issues.apache.org/jira/browse/SPARK-22495), [SPARK-22574](https://issues.apache.org/jira/browse/SPARK-22574), [SPARK-22591](https://issues.apache.org/jira/browse/SPARK-22591), [SPARK-22595](https://issues.apache.org/jira/browse/SPARK-22595), [SPARK-22601](https://issues.apache.org/jira/browse/SPARK-22601), [SPARK-22603](https://issues.apache.org/jira/browse/SPARK-22603), [SPARK-22607](https://issues.apache.org/jira/browse/SPARK-22607), [SPARK-22635](https://issues.apache.org/jira/browse/SPARK-22635), [SPARK-22637](https://issues.apache.org/jira/browse/SPARK-22637), [SPARK-22653](https://issues.apache.org/jira/browse/SPARK-22653), [SPARK-22654](https://issues.apache.org/jira/browse/SPARK-22654), [SPARK-22686](https://issues.apache.org/jira/browse/SPARK-22686), [SPARK-22688](https://issues.apache.org/jira/browse/SPARK-22688), [SPARK-22817](https://issues.apache.org/jira/browse/SPARK-22817), [SPARK-22862](https://issues.apache.org/jira/browse/SPARK-22862), [SPARK-22889](https://issues.apache.org/jira/browse/SPARK-22889), [SPARK-22972](https://issues.apache.org/jira/browse/SPARK-22972), [SPARK-22975](https://issues.apache.org/jira/browse/SPARK-22975), [SPARK-22982](https://issues.apache.org/jira/browse/SPARK-22982), [SPARK-22983](https://issues.apache.org/jira/browse/SPARK-22983), [SPARK-22984](https://issues.apache.org/jira/browse/SPARK-22984), [SPARK-23001](https://issues.apache.org/jira/browse/SPARK-23001), [SPARK-23038](https://issues.apache.org/jira/browse/SPARK-23038), [SPARK-23095](https://issues.apache.org/jira/browse/SPARK-23095) | Update Spark2 up-to-date to 2.2.1 (Jan. 16) |
| BUG-92680 | [ATLAS-2288](https://issues.apache.org/jira/browse/ATLAS-2288) | NoClassDefFoundError Exception while running import-hive script when hbase table is created via Hive |
| BUG-92760 | [ACCUMULO-4578](https://issues.apache.org/jira/browse/ACCUMULO-4578) | Cancel compaction FATE operation does not release namespace lock |
| BUG-92797 | [HDFS-10267](https://issues.apache.org/jira/browse/HDFS-10267), [HDFS-8496](https://issues.apache.org/jira/browse/HDFS-8496) | Reducing the datanode lock contentions on certain use cases |
| BUG-92813 | [FLUME-2973](https://issues.apache.org/jira/browse/FLUME-2973) | Deadlock in hdfs sink |
| BUG-92957 | [HIVE-11266](https://issues.apache.org/jira/browse/HIVE-11266) | count(\*) wrong result based on table statistics for external tables |
| BUG-93018 | [ATLAS-2310](https://issues.apache.org/jira/browse/ATLAS-2310) | In HA, the passive node redirects the request with wrong URL encoding |
| BUG-93116 | [RANGER-1957](https://issues.apache.org/jira/browse/RANGER-1957) | Ranger Usersync is not syncing users or groups periodically when incremental sync is enabled. |
| BUG-93361 | [HIVE-12360](https://issues.apache.org/jira/browse/HIVE-12360) | Bad seek in uncompressed ORC with predicate pushdown |
| BUG-93426 | [CALCITE-2086](https://issues.apache.org/jira/browse/CALCITE-2086) | HTTP/413 in certain circumstances due to large Authorization headers |
| BUG-93429 | [PHOENIX-3240](https://issues.apache.org/jira/browse/PHOENIX-3240) | ClassCastException from Pig loader |
| BUG-93485 | N/A | Cannot get table mytestorg.apache.hadoop.hive.ql.metadata.InvalidTableException: Table not found when running analyze table on columns in LLAP |
| BUG-93512 | [PHOENIX-4466](https://issues.apache.org/jira/browse/PHOENIX-4466) | java.lang.RuntimeException: response code 500 - Executing a spark job to connect to phoenix query server and load data |
| BUG-93550 | N/A | Zeppelin %spark.r does not work with spark1 due to scala version mismatch |
| BUG-93910 | [HIVE-18293](https://issues.apache.org/jira/browse/HIVE-18293) | Hive is failing to compact tables contained within a folder that is not owned by identity running HiveMetaStore |
| BUG-93926 | [ZEPPELIN-3114](https://issues.apache.org/jira/browse/ZEPPELIN-3114) | Notebooks and interpreters are not getting saved in zeppelin after >1d stress testing |
| BUG-93932 | [ATLAS-2320](https://issues.apache.org/jira/browse/ATLAS-2320) | classification "\*" with query throws 500 Internal server exception. |
| BUG-93948 | [YARN-7697](https://issues.apache.org/jira/browse/YARN-7697) | NM goes down with OOM due to leak in log-aggregation (part#1) |
| BUG-93965 | [ATLAS-2229](https://issues.apache.org/jira/browse/ATLAS-2229) | DSL search : orderby non-string attribute throws exception |
| BUG-93986 | [YARN-7697](https://issues.apache.org/jira/browse/YARN-7697) | NM goes down with OOM due to leak in log-aggregation (part#2) |
| BUG-94030 | [ATLAS-2332](https://issues.apache.org/jira/browse/ATLAS-2332) | Creation of type with attributes having nested collection datatype fails |
| BUG-94080 | [YARN-3742](https://issues.apache.org/jira/browse/YARN-3742), [YARN-6061](https://issues.apache.org/jira/browse/YARN-6061) | Both RM are in standby in secure cluster |
| BUG-94081 | [HIVE-18384](https://issues.apache.org/jira/browse/HIVE-18384) | ConcurrentModificationException in log4j2.x library |
| BUG-94168 | N/A | Yarn RM goes down with Service Registry is in wrong state ERROR |
| BUG-94330 | [HADOOP-13190](https://issues.apache.org/jira/browse/HADOOP-13190), [HADOOP-14104](https://issues.apache.org/jira/browse/HADOOP-14104), [HADOOP-14814](https://issues.apache.org/jira/browse/HADOOP-14814), [HDFS-10489](https://issues.apache.org/jira/browse/HDFS-10489), [HDFS-11689](https://issues.apache.org/jira/browse/HDFS-11689) | HDFS should support for multiple KMS Uris |
| BUG-94345 | [HIVE-18429](https://issues.apache.org/jira/browse/HIVE-18429) | Compaction should handle a case when it produces no output |
| BUG-94372 | [ATLAS-2229](https://issues.apache.org/jira/browse/ATLAS-2229) | DSL query : hive\_table name = ["t1","t2"] throws invalid DSL query exception |
| BUG-94381 | [HADOOP-13227](https://issues.apache.org/jira/browse/HADOOP-13227), [HDFS-13054](https://issues.apache.org/jira/browse/HDFS-13054) | Handling RequestHedgingProxyProvider RetryAction order: FAIL < RETRY < FAILOVER\_AND\_RETRY. |
| BUG-94432 | [HIVE-18353](https://issues.apache.org/jira/browse/HIVE-18353) | CompactorMR should call jobclient.close() to trigger cleanup |
| BUG-94575 | [SPARK-22587](https://issues.apache.org/jira/browse/SPARK-22587) | Spark job fails if fs.defaultFS and application jar are different url |
| BUG-94791 | [SPARK-22793](https://issues.apache.org/jira/browse/SPARK-22793) | Memory leak in Spark Thrift Server |
| BUG-94928 | [HDFS-11078](https://issues.apache.org/jira/browse/HDFS-11078) | Fix NPE in LazyPersistFileScrubber |
| BUG-95013 | [HIVE-18488](https://issues.apache.org/jira/browse/HIVE-18488) | LLAP ORC readers are missing some null checks |
| BUG-95077 | [HIVE-14205](https://issues.apache.org/jira/browse/HIVE-14205) | Hive doesn't support union type with AVRO file format |
| BUG-95200 | [HDFS-13061](https://issues.apache.org/jira/browse/HDFS-13061) | SaslDataTransferClient#checkTrustAndSend should not trust a partially trusted channel |
| BUG-95201 | [HDFS-13060](https://issues.apache.org/jira/browse/HDFS-13060) | Adding a BlacklistBasedTrustedChannelResolver for TrustedChannelResolver |
| BUG-95284 | [HBASE-19395](https://issues.apache.org/jira/browse/HBASE-19395) | [branch-1] TestEndToEndSplitTransaction.testMasterOpsWhileSplitting fails with NPE |
| BUG-95301 | [HIVE-18517](https://issues.apache.org/jira/browse/HIVE-18517) | Vectorization: Fix VectorMapOperator to accept VRBs and check vectorized flag correctly to support LLAP Caching |
| BUG-95542 | [HBASE-16135](https://issues.apache.org/jira/browse/HBASE-16135) | PeerClusterZnode under rs of removed peer may never be deleted |
| BUG-95595 | [HIVE-15563](https://issues.apache.org/jira/browse/HIVE-15563) | Ignore Illegal Operation state transition exception in SQLOperation.runQuery to expose real exception. |
| BUG-95596 | [YARN-4126](https://issues.apache.org/jira/browse/YARN-4126), [YARN-5750](https://issues.apache.org/jira/browse/YARN-5750) | TestClientRMService fails |
| BUG-96019 | [HIVE-18548](https://issues.apache.org/jira/browse/HIVE-18548) | Fix log4j import |
| BUG-96196 | [HDFS-13120](https://issues.apache.org/jira/browse/HDFS-13120) | Snapshot diff could be corrupted after concat |
| BUG-96289 | [HDFS-11701](https://issues.apache.org/jira/browse/HDFS-11701) | NPE from Unresolved Host causes permanent DFSInputStream failures |
| BUG-96291 | [STORM-2652](https://issues.apache.org/jira/browse/STORM-2652) | Exception thrown in JmsSpout open method |
| BUG-96363 | [HIVE-18959](https://issues.apache.org/jira/browse/HIVE-18959) | Avoid creating extra pool of threads within LLAP |
| BUG-96390 | [HDFS-10453](https://issues.apache.org/jira/browse/HDFS-10453) | ReplicationMonitor thread could stuck for long time due to the race between replication and delete of same file in a large cluster. |
| BUG-96454 | [YARN-4593](https://issues.apache.org/jira/browse/YARN-4593) | Deadlock in AbstractService.getConfig() |
| BUG-96704 | [FALCON-2322](https://issues.apache.org/jira/browse/FALCON-2322) | ClassCastException while submitAndSchedule feed |
| BUG-96720 | [SLIDER-1262](https://issues.apache.org/jira/browse/SLIDER-1262) | Slider functests are failing in Kerberized environment |
| BUG-96931 | [SPARK-23053](https://issues.apache.org/jira/browse/SPARK-23053), [SPARK-23186](https://issues.apache.org/jira/browse/SPARK-23186), [SPARK-23230](https://issues.apache.org/jira/browse/SPARK-23230), [SPARK-23358](https://issues.apache.org/jira/browse/SPARK-23358), [SPARK-23376](https://issues.apache.org/jira/browse/SPARK-23376), [SPARK-23391](https://issues.apache.org/jira/browse/SPARK-23391) | Update Spark2 up-to-date (Feb. 19) |
| BUG-97067 | [HIVE-10697](https://issues.apache.org/jira/browse/HIVE-10697) | ObjectInspectorConvertors#UnionConvertor does a faulty conversion |
| BUG-97244 | [KNOX-1083](https://issues.apache.org/jira/browse/KNOX-1083) | HttpClient default timeout should be a sensible value |
| BUG-97459 | [ZEPPELIN-3271](https://issues.apache.org/jira/browse/ZEPPELIN-3271) | Option for disabling scheduler |
| BUG-97511 | [KNOX-1197](https://issues.apache.org/jira/browse/KNOX-1197) | AnonymousAuthFilter is not added when authentication=Anonymous in service |
| BUG-97601 | [HIVE-17479](https://issues.apache.org/jira/browse/HIVE-17479) | Staging directories do not get cleaned up for update/delete queries |
| BUG-97605 | [HIVE-18858](https://issues.apache.org/jira/browse/HIVE-18858) | System properties in job configuration not resolved when submitting MR job |
| BUG-97674 | [OOZIE-3186](https://issues.apache.org/jira/browse/OOZIE-3186) | Oozie is unable to use configuration linked using jceks://file/... |
| BUG-97743 | N/A | java.lang.NoClassDefFoundError exception while deploying storm topology |
| BUG-97756 | [PHOENIX-4576](https://issues.apache.org/jira/browse/PHOENIX-4576) | Fix LocalIndexSplitMergeIT tests failing in master branch |
| BUG-97771 | [HDFS-11711](https://issues.apache.org/jira/browse/HDFS-11711) | DN should not delete the block On "Too many open files" Exception |
| BUG-97869 | [KNOX-1190](https://issues.apache.org/jira/browse/KNOX-1190) | Knox SSO support for Google OIDC is broken. |
| BUG-97879 | [PHOENIX-4489](https://issues.apache.org/jira/browse/PHOENIX-4489) | HBase Connection leak in Phoenix MR Jobs |
| BUG-98392 | [RANGER-2007](https://issues.apache.org/jira/browse/RANGER-2007) | ranger-tagsync's Kerberos ticket fails to renew |
| BUG-98484 | N/A | Hive Incremental Replication to Cloud not working |
| BUG-98533 | [HBASE-19934](https://issues.apache.org/jira/browse/HBASE-19934), [HBASE-20008](https://issues.apache.org/jira/browse/HBASE-20008) | Hbase snapshot restore is failing due to Null pointer exception |
| BUG-98555 | [PHOENIX-4662](https://issues.apache.org/jira/browse/PHOENIX-4662) | NullPointerException in TableResultIterator.java on cache resend |
| BUG-98579 | [HBASE-13716](https://issues.apache.org/jira/browse/HBASE-13716) | Stop using Hadoop's FSConstants |
| BUG-98705 | [KNOX-1230](https://issues.apache.org/jira/browse/KNOX-1230) | Many Concurrent Requests to Knox causes URL Mangling |
| BUG-98983 | [KNOX-1108](https://issues.apache.org/jira/browse/KNOX-1108) | NiFiHaDispatch not failing over |
| BUG-99107 | [HIVE-19054](https://issues.apache.org/jira/browse/HIVE-19054) | Function replication shall use "hive.repl.replica.functions.root.dir" as root |
| BUG-99145 | [RANGER-2035](https://issues.apache.org/jira/browse/RANGER-2035) | Errors accessing servicedefs with empty implClass with Oracle backend |
| BUG-99160 | [SLIDER-1259](https://issues.apache.org/jira/browse/SLIDER-1259) | Slider does not work in multi homed environments |
| BUG-99239 | [ATLAS-2462](https://issues.apache.org/jira/browse/ATLAS-2462) | Sqoop import for all tables throws NPE for no table provided in command |
| BUG-99301 | [ATLAS-2530](https://issues.apache.org/jira/browse/ATLAS-2530) | Newline at the beginning of the name attribute of a hive\_process and hive\_column\_lineage |
| BUG-99453 | [HIVE-19065](https://issues.apache.org/jira/browse/HIVE-19065) | Metastore client compatibility check should include syncMetaStoreClient |
| BUG-99521 | N/A | ServerCache for HashJoin is not re-created when iterators are re-instantiated |
| BUG-99590 | [PHOENIX-3518](https://issues.apache.org/jira/browse/PHOENIX-3518) | Memory Leak in RenewLeaseTask |
| BUG-99618 | [SPARK-23599](https://issues.apache.org/jira/browse/SPARK-23599), [SPARK-23806](https://issues.apache.org/jira/browse/SPARK-23806) | Update Spark2 to 2.3.0+ (3/28) |
| BUG-99672 | [ATLAS-2524](https://issues.apache.org/jira/browse/ATLAS-2524) | Hive hook with V2 notifications - incorrect handling of 'alter view as' operation |
| BUG-99809 | [HBASE-20375](https://issues.apache.org/jira/browse/HBASE-20375) | Remove use of getCurrentUserCredentials in hbase-spark module |

**Supportability**

| **Hortonworks Bug ID** | **Apache JIRA** | **Summary** |
| --- | --- | --- |
| BUG-87343 | [HIVE-18031](https://issues.apache.org/jira/browse/HIVE-18031) | Support replication for Alter Database operation. |
| BUG-91293 | [RANGER-2060](https://issues.apache.org/jira/browse/RANGER-2060) | Knox proxy with knox-sso is not working for ranger |
| BUG-93116 | [RANGER-1957](https://issues.apache.org/jira/browse/RANGER-1957) | Ranger Usersync is not syncing users or groups periodically when incremental sync is enabled. |
| BUG-93577 | [RANGER-1938](https://issues.apache.org/jira/browse/RANGER-1938) | Solr for Audit setup doesn't use DocValues effectively |
| BUG-96082 | [RANGER-1982](https://issues.apache.org/jira/browse/RANGER-1982) | Error Improvement for Analytics Metric of Ranger Admin and Ranger Kms |
| BUG-96479 | [HDFS-12781](https://issues.apache.org/jira/browse/HDFS-12781) | After Datanode down, In Namenode UI Datanode tab is throwing warning message. |
| BUG-97864 | [HIVE-18833](https://issues.apache.org/jira/browse/HIVE-18833) | Auto Merge fails when "insert into directory as orcfile" |
| BUG-98814 | [HDFS-13314](https://issues.apache.org/jira/browse/HDFS-13314) | NameNode should optionally exit if it detects FsImage corruption |

**Upgrade**

| **Hortonworks Bug ID** | **Apache JIRA** | **Summary** |
| --- | --- | --- |
| BUG-100134 | [SPARK-22919](https://issues.apache.org/jira/browse/SPARK-22919) | Revert of "Bump Apache httpclient versions" |
| BUG-95823 | N/A | Knox: Upgrade Beanutils |
| BUG-96751 | [KNOX-1076](https://issues.apache.org/jira/browse/KNOX-1076) | Update nimbus-jose-jwt to 4.41.2 |
| BUG-97864 | [HIVE-18833](https://issues.apache.org/jira/browse/HIVE-18833) | Auto Merge fails when "insert into directory as orcfile" |
| BUG-99056 | [HADOOP-13556](https://issues.apache.org/jira/browse/HADOOP-13556) | Change Configuration.getPropsWithPrefix to use getProps instead of iterator |
| BUG-99378 | [ATLAS-2461](https://issues.apache.org/jira/browse/ATLAS-2461), [ATLAS-2554](https://issues.apache.org/jira/browse/ATLAS-2554) | Migration utility to export Atlas data in Titan graph DB |

**Usability**

| **Hortonworks Bug ID** | **Apache JIRA** | **Summary** |
| --- | --- | --- |
| BUG-100045 | [HIVE-19056](https://issues.apache.org/jira/browse/HIVE-19056) | IllegalArgumentException in FixAcidKeyIndex when ORC file has 0 rows |
| BUG-100139 | [KNOX-1243](https://issues.apache.org/jira/browse/KNOX-1243) | Normalize the required DNs that are Configured in KnoxToken Service |
| BUG-100570 | [ATLAS-2557](https://issues.apache.org/jira/browse/ATLAS-2557) | Fix to allow to lookup hadoop ldap groups when are groups from UGI are wrongly set or are not empty |
| BUG-100646 | [ATLAS-2102](https://issues.apache.org/jira/browse/ATLAS-2102) | Atlas UI Improvements: Search results page |
| BUG-100737 | [HIVE-19049](https://issues.apache.org/jira/browse/HIVE-19049) | Add support for Alter table add columns for Druid |
| BUG-100750 | [KNOX-1246](https://issues.apache.org/jira/browse/KNOX-1246) | Update service config in Knox to support latest configurations for Ranger. |
| BUG-100965 | [ATLAS-2581](https://issues.apache.org/jira/browse/ATLAS-2581) | Regression with V2 Hive hook notifications : Moving table to a different database |
| BUG-84413 | [ATLAS-1964](https://issues.apache.org/jira/browse/ATLAS-1964) | UI : Support to order columns in Search table |
| BUG-90570 | [HDFS-11384](https://issues.apache.org/jira/browse/HDFS-11384), [HDFS-12347](https://issues.apache.org/jira/browse/HDFS-12347) | Add option for balancer to disperse getBlocks calls to avoid NameNode's rpc.CallQueueLength spike |
| BUG-90584 | [HBASE-19052](https://issues.apache.org/jira/browse/HBASE-19052) | FixedFileTrailer should recognize CellComparatorImpl class in branch-1.x |
| BUG-90979 | [KNOX-1224](https://issues.apache.org/jira/browse/KNOX-1224) | Knox Proxy HADispatcher to support Atlas in HA. |
| BUG-91293 | [RANGER-2060](https://issues.apache.org/jira/browse/RANGER-2060) | Knox proxy with knox-sso is not working for ranger |
| BUG-92236 | [ATLAS-2281](https://issues.apache.org/jira/browse/ATLAS-2281) | Saving Tag/Type attribute filter queries with null/not null filters. |
| BUG-92238 | [ATLAS-2282](https://issues.apache.org/jira/browse/ATLAS-2282) | Saved favorite search appears only on refresh after creation when there are 25+ favorite searches . |
| BUG-92333 | [ATLAS-2286](https://issues.apache.org/jira/browse/ATLAS-2286) | Pre-built type 'kafka\_topic' should not declare 'topic' attribute as unique |
| BUG-92678 | [ATLAS-2276](https://issues.apache.org/jira/browse/ATLAS-2276) | Path value for hdfs\_path type entity is set to lower case from hive-bridge. |
| BUG-93097 | [RANGER-1944](https://issues.apache.org/jira/browse/RANGER-1944) | Action filter for Admin Audit is not working |
| BUG-93135 | [HIVE-15874](https://issues.apache.org/jira/browse/HIVE-15874), [HIVE-18189](https://issues.apache.org/jira/browse/HIVE-18189) | Hive query returning wrong results when set hive.groupby.orderby.position.alias to true |
| BUG-93136 | [HIVE-18189](https://issues.apache.org/jira/browse/HIVE-18189) | Order by position does not work when cbo is disabled |
| BUG-93387 | [HIVE-17600](https://issues.apache.org/jira/browse/HIVE-17600) | Make OrcFile's "enforceBufferSize" user-settable. |
| BUG-93495 | [RANGER-1937](https://issues.apache.org/jira/browse/RANGER-1937) | Ranger tagsync should process ENTITY\_CREATE notification, to support Atlas import feature |
| BUG-93512 | [PHOENIX-4466](https://issues.apache.org/jira/browse/PHOENIX-4466) | java.lang.RuntimeException: response code 500 - Executing a spark job to connect to phoenix query server and load data |
| BUG-93801 | [HBASE-19393](https://issues.apache.org/jira/browse/HBASE-19393) | HTTP 413 FULL head while accessing HBase UI using SSL. |
| BUG-93804 | [HIVE-17419](https://issues.apache.org/jira/browse/HIVE-17419) | ANALYZE TABLE...COMPUTE STATISTICS FOR COLUMNS command shows computed stats for masked tables |
| BUG-93932 | [ATLAS-2320](https://issues.apache.org/jira/browse/ATLAS-2320) | classification "\*" with query throws 500 Internal server exception. |
| BUG-93933 | [ATLAS-2286](https://issues.apache.org/jira/browse/ATLAS-2286) | Pre-built type 'kafka\_topic' should not declare 'topic' attribute as unique |
| BUG-93938 | [ATLAS-2283](https://issues.apache.org/jira/browse/ATLAS-2283), [ATLAS-2295](https://issues.apache.org/jira/browse/ATLAS-2295) | UI updates for classifications |
| BUG-93941 | [ATLAS-2296](https://issues.apache.org/jira/browse/ATLAS-2296), [ATLAS-2307](https://issues.apache.org/jira/browse/ATLAS-2307) | Basic search enhancement to optionally exclude sub-type entities and sub-classification-types |
| BUG-93944 | [ATLAS-2318](https://issues.apache.org/jira/browse/ATLAS-2318) | UI : Clicking on child tag twice , parent tag is selected |
| BUG-93946 | [ATLAS-2319](https://issues.apache.org/jira/browse/ATLAS-2319) | UI : Deleting a tag which at 25+ position in the tag list in both Flat and Tree structure needs a refresh to remove the tag from the list. |
| BUG-93977 | [HIVE-16232](https://issues.apache.org/jira/browse/HIVE-16232) | Support stats computation for column in QuotedIdentifier |
| BUG-94030 | [ATLAS-2332](https://issues.apache.org/jira/browse/ATLAS-2332) | Creation of type with attributes having nested collection datatype fails |
| BUG-94099 | [ATLAS-2352](https://issues.apache.org/jira/browse/ATLAS-2352) | Atlas server should provide configuration to specify validity for Kerberos DelegationToken |
| BUG-94280 | [HIVE-12785](https://issues.apache.org/jira/browse/HIVE-12785) | View with union type and UDF to `cast` the struct is broken |
| BUG-94332 | [SQOOP-2930](https://issues.apache.org/jira/browse/SQOOP-2930) | Sqoop job exec not overriding the saved job generic properties |
| BUG-94428 | N/A | Dataplane Profiler Agent REST API Knox support |
| BUG-94514 | [ATLAS-2339](https://issues.apache.org/jira/browse/ATLAS-2339) | UI : Modifications in "columns" in Basic search result view affects DSL also. |
| BUG-94515 | [ATLAS-2169](https://issues.apache.org/jira/browse/ATLAS-2169) | Delete request fails when hard delete is configured |
| BUG-94518 | [ATLAS-2329](https://issues.apache.org/jira/browse/ATLAS-2329) | Atlas UI Multiple Hovers appears if user click on another tag which is incorrect |
| BUG-94519 | [ATLAS-2272](https://issues.apache.org/jira/browse/ATLAS-2272) | Save the state of dragged columns using save search API. |
| BUG-94627 | [HIVE-17731](https://issues.apache.org/jira/browse/HIVE-17731) | add a backward compat option for external users to HIVE-11985 |
| BUG-94786 | [HIVE-6091](https://issues.apache.org/jira/browse/HIVE-6091) | Empty pipeout files are created for connection create/close |
| BUG-94793 | [HIVE-14013](https://issues.apache.org/jira/browse/HIVE-14013) | Describe table doesn't show unicode properly |
| BUG-94900 | [OOZIE-2606](https://issues.apache.org/jira/browse/OOZIE-2606), [OOZIE-2658](https://issues.apache.org/jira/browse/OOZIE-2658), [OOZIE-2787](https://issues.apache.org/jira/browse/OOZIE-2787), [OOZIE-2802](https://issues.apache.org/jira/browse/OOZIE-2802) | Set spark.yarn.jars to fix Spark 2.0 with Oozie |
| BUG-94901 | [HBASE-19285](https://issues.apache.org/jira/browse/HBASE-19285) | Add per-table latency histograms |
| BUG-94908 | [ATLAS-1921](https://issues.apache.org/jira/browse/ATLAS-1921) | UI : Search using entity and trait attributes : UI doesn't perform range check and allows providing out of bounds values for integral and float data types. |
| BUG-95086 | [RANGER-1953](https://issues.apache.org/jira/browse/RANGER-1953) | improvement on user-group page listing |
| BUG-95193 | [SLIDER-1252](https://issues.apache.org/jira/browse/SLIDER-1252) | Slider agent fails with SSL validation errors with python 2.7.5-58 |
| BUG-95314 | [YARN-7699](https://issues.apache.org/jira/browse/YARN-7699) | queueUsagePercentage is coming as INF for getApp REST api call |
| BUG-95315 | [HBASE-13947](https://issues.apache.org/jira/browse/HBASE-13947), [HBASE-14517](https://issues.apache.org/jira/browse/HBASE-14517), [HBASE-17931](https://issues.apache.org/jira/browse/HBASE-17931) | Assign system tables to servers with highest version |
| BUG-95392 | [ATLAS-2421](https://issues.apache.org/jira/browse/ATLAS-2421) | Notification updates to support V2 data structures |
| BUG-95476 | [RANGER-1966](https://issues.apache.org/jira/browse/RANGER-1966) | Policy engine initialization does not create context enrichers in some cases |
| BUG-95512 | [HIVE-18467](https://issues.apache.org/jira/browse/HIVE-18467) | support whole warehouse dump / load + create/drop database events |
| BUG-95593 | N/A | Extend Oozie DB utils to support Spark2 sharelib creation |
| BUG-95595 | [HIVE-15563](https://issues.apache.org/jira/browse/HIVE-15563) | Ignore Illegal Operation state transition exception in SQLOperation.runQuery to expose real exception. |
| BUG-95685 | [ATLAS-2422](https://issues.apache.org/jira/browse/ATLAS-2422) | Export: Support type-based Export |
| BUG-95798 | [PHOENIX-2714](https://issues.apache.org/jira/browse/PHOENIX-2714), [PHOENIX-2724](https://issues.apache.org/jira/browse/PHOENIX-2724), [PHOENIX-3023](https://issues.apache.org/jira/browse/PHOENIX-3023), [PHOENIX-3040](https://issues.apache.org/jira/browse/PHOENIX-3040) | Don't use guideposts for executing queries serially |
| BUG-95969 | [HIVE-16828](https://issues.apache.org/jira/browse/HIVE-16828), [HIVE-17063](https://issues.apache.org/jira/browse/HIVE-17063), [HIVE-18390](https://issues.apache.org/jira/browse/HIVE-18390) | Partitioned view fails with FAILED: IndexOutOfBoundsException Index: 1, Size: 1 |
| BUG-96019 | [HIVE-18548](https://issues.apache.org/jira/browse/HIVE-18548) | Fix log4j import |
| BUG-96288 | [HBASE-14123](https://issues.apache.org/jira/browse/HBASE-14123), [HBASE-14135](https://issues.apache.org/jira/browse/HBASE-14135), [HBASE-17850](https://issues.apache.org/jira/browse/HBASE-17850) | Backport Hbase Backup/Restore 2.0 |
| BUG-96313 | [KNOX-1119](https://issues.apache.org/jira/browse/KNOX-1119) | Pac4J OAuth/OpenID Principal Needs to be Configurable |
| BUG-96365 | [ATLAS-2442](https://issues.apache.org/jira/browse/ATLAS-2442) | User with read-only permission on entity resource not able perform basic search |
| BUG-96479 | [HDFS-12781](https://issues.apache.org/jira/browse/HDFS-12781) | After Datanode down, In Namenode UI Datanode tab is throwing warning message. |
| BUG-96502 | [RANGER-1990](https://issues.apache.org/jira/browse/RANGER-1990) | Add One-way SSL MySQL support in Ranger Admin |
| BUG-96718 | [ATLAS-2439](https://issues.apache.org/jira/browse/ATLAS-2439) | Update Sqoop hook to use V2 notifications |
| BUG-96748 | [HIVE-18587](https://issues.apache.org/jira/browse/HIVE-18587) | insert DML event may attempt to calculate a checksum on directories |
| BUG-96821 | [HBASE-18212](https://issues.apache.org/jira/browse/HBASE-18212) | In Standalone mode with local filesystem HBase logs Warning message:Failed to invoke 'unbuffer' method in class class org.apache.hadoop.fs.FSDataInputStream |
| BUG-96847 | [HIVE-18754](https://issues.apache.org/jira/browse/HIVE-18754) | REPL STATUS should support 'with' clause |
| BUG-96873 | [ATLAS-2443](https://issues.apache.org/jira/browse/ATLAS-2443) | Capture required entity attributes in outgoing DELETE messages |
| BUG-96880 | [SPARK-23230](https://issues.apache.org/jira/browse/SPARK-23230) | When hive.default.fileformat is other kinds of file types, create textfile table cause a serde error |
| BUG-96911 | [OOZIE-2571](https://issues.apache.org/jira/browse/OOZIE-2571), [OOZIE-2792](https://issues.apache.org/jira/browse/OOZIE-2792), [OOZIE-2799](https://issues.apache.org/jira/browse/OOZIE-2799), [OOZIE-2923](https://issues.apache.org/jira/browse/OOZIE-2923) | Improve Spark options parsing |
| BUG-97100 | [RANGER-1984](https://issues.apache.org/jira/browse/RANGER-1984) | Hbase audit log records may not show all tags associated with accessed column |
| BUG-97110 | [PHOENIX-3789](https://issues.apache.org/jira/browse/PHOENIX-3789) | Execute cross region index maintenance calls in postBatchMutateIndispensably |
| BUG-97145 | [HIVE-12245](https://issues.apache.org/jira/browse/HIVE-12245), [HIVE-17829](https://issues.apache.org/jira/browse/HIVE-17829) | Support column comments for an HBase backed table |
| BUG-97409 | [HADOOP-15255](https://issues.apache.org/jira/browse/HADOOP-15255) | Upper/Lower case conversion support for group names in LdapGroupsMapping |
| BUG-97535 | [HIVE-18710](https://issues.apache.org/jira/browse/HIVE-18710) | extend inheritPerms to ACID in Hive 2.X |
| BUG-97742 | [OOZIE-1624](https://issues.apache.org/jira/browse/OOZIE-1624) | Exclusion pattern for sharelib JARs |
| BUG-97744 | [PHOENIX-3994](https://issues.apache.org/jira/browse/PHOENIX-3994) | Index RPC priority still depends on the controller factory property in hbase-site.xml |
| BUG-97787 | [HIVE-18460](https://issues.apache.org/jira/browse/HIVE-18460) | Compactor doesn't pass Table properties to the Orc writer |
| BUG-97788 | [HIVE-18613](https://issues.apache.org/jira/browse/HIVE-18613) | Extend JsonSerDe to support BINARY type |
| BUG-97899 | [HIVE-18808](https://issues.apache.org/jira/browse/HIVE-18808) | Make compaction more robust when stats update fails |
| BUG-98038 | [HIVE-18788](https://issues.apache.org/jira/browse/HIVE-18788) | Clean up inputs in JDBC PreparedStatement |
| BUG-98383 | [HIVE-18907](https://issues.apache.org/jira/browse/HIVE-18907) | Create utility to fix acid key index issue from HIVE-18817 |
| BUG-98388 | [RANGER-1828](https://issues.apache.org/jira/browse/RANGER-1828) | Good coding practice-add additional headers in ranger |
| BUG-98392 | [RANGER-2007](https://issues.apache.org/jira/browse/RANGER-2007) | ranger-tagsync's Kerberos ticket fails to renew |
| BUG-98533 | [HBASE-19934](https://issues.apache.org/jira/browse/HBASE-19934), [HBASE-20008](https://issues.apache.org/jira/browse/HBASE-20008) | Hbase snapshot restore is failing due to Null pointer exception |
| BUG-98552 | [HBASE-18083](https://issues.apache.org/jira/browse/HBASE-18083), [HBASE-18084](https://issues.apache.org/jira/browse/HBASE-18084) | Make large/small file clean thread number configurable in HFileCleaner |
| BUG-98705 | [KNOX-1230](https://issues.apache.org/jira/browse/KNOX-1230) | Many Concurrent Requests to Knox causes URL Mangling |
| BUG-98711 | N/A | NiFi dispatch can't use two-way SSL without service.xml modifications |
| BUG-98880 | [OOZIE-3199](https://issues.apache.org/jira/browse/OOZIE-3199) | Let system property restriction configurable |
| BUG-98931 | [ATLAS-2491](https://issues.apache.org/jira/browse/ATLAS-2491) | Update Hive hook to use Atlas v2 notifications |
| BUG-98983 | [KNOX-1108](https://issues.apache.org/jira/browse/KNOX-1108) | NiFiHaDispatch not failing over |
| BUG-99088 | [ATLAS-2511](https://issues.apache.org/jira/browse/ATLAS-2511) | Provide options to selectively import database / tables from Hive into Atlas |
| BUG-99154 | [OOZIE-2844](https://issues.apache.org/jira/browse/OOZIE-2844), [OOZIE-2845](https://issues.apache.org/jira/browse/OOZIE-2845), [OOZIE-2858](https://issues.apache.org/jira/browse/OOZIE-2858), [OOZIE-2885](https://issues.apache.org/jira/browse/OOZIE-2885) | Spark query failed with "java.io.FileNotFoundException: hive-site.xml (Permission denied)" exception |
| BUG-99239 | [ATLAS-2462](https://issues.apache.org/jira/browse/ATLAS-2462) | Sqoop import for all tables throws NPE for no table provided in command |
| BUG-99636 | [KNOX-1238](https://issues.apache.org/jira/browse/KNOX-1238) | Fix Custom Truststore Settings for Gateway |
| BUG-99650 | [KNOX-1223](https://issues.apache.org/jira/browse/KNOX-1223) | Zeppelin's Knox proxy doesn't redirect /api/ticket as expected |
| BUG-99804 | [OOZIE-2858](https://issues.apache.org/jira/browse/OOZIE-2858) | HiveMain, ShellMain and SparkMain should not overwrite properties and config files locally |
| BUG-99805 | [OOZIE-2885](https://issues.apache.org/jira/browse/OOZIE-2885) | Running Spark actions should not need Hive on the classpath |
| BUG-99806 | [OOZIE-2845](https://issues.apache.org/jira/browse/OOZIE-2845) | Replace reflection-based code which sets variable in HiveConf |
| BUG-99807 | [OOZIE-2844](https://issues.apache.org/jira/browse/OOZIE-2844) | Increase stability of Oozie actions when log4j.properties is missing or not readable |
| RMP-9995 | [AMBARI-22222](https://issues.apache.org/jira/browse/AMBARI-22222) | Switch druid to use /var/druid directory instead of /apps/druid on local disk |

# Behavioral changes

| **Apache Component** | **Apache JIRA** | **Summary** | **Details** |
| --- | --- | --- | --- |
| **Spark 2.3** | **N/A** | **Changes as documented in the Apache Spark release notes** | * + There is a `Deprecation` document and a `Change of behavior` guide [https://spark.apache.org/releases/spark-release-2-3-0.html#deprecations](https://spark.apache.org/releases/spark-release-2-3-0.html)   + For SQL part, there is another detailed `Migration` guide (from 2.2 to 2.3), [http://spark.apache.org/docs/latest/sql-programming-guide.html#upgrading-from-spark-sql-22-to-23](http://spark.apache.org/docs/latest/sql-programming-guide.html) |
| Spark | [HIVE-12505](https://issues.apache.org/jira/browse/HIVE-12505) | Spark job completes successfully but there is an HDFS disk quota full error | **Scenario:** Running **insert overwrite** when a quota is set on the Trash folder of the user who runs the command.  **Previous Behavior:** The job succeeds even though it fails to move the data to the Trash. The result can wrongly contain some of the data previously present in the table.  **New Behavior:** When the move to the Trash folder fails, the files are permanently deleted. |
| **Kafka 1.0** | **N/A** | **Changes as documented in the Apache Spark release notes** | <http://kafka.apache.org/10/documentation.html#upgrade_100_notable> |
|  |  |  |  |
| **Hive/ Ranger** |  | Additional ranger hive policies required for INSERT OVERWRITE | **Scenario:**Additional ranger hive policies required for **INSERT OVERWRITE**  **Previous behavior:** Hive **INSERT OVERWRITE**queries succeed as usual.  **New behavior:** Hive **INSERT OVERWRITE** queries are unexpectedly failing after upgrading to HDP-2.6.x with the error:  Error while compiling statement: FAILED: HiveAccessControlException Permission denied: user jdoe does not have WRITE privilege on /tmp/\*(state=42000,code=40000)  As of HDP-2.6.0, Hive **INSERT OVERWRITE** queries require a Ranger URI policy to allow write operations, even if the user has write privilege granted through HDFS policy.  **Workaround/Expected Customer Action:**   1. Create a new policy under the Hive repository. 2. In the dropdown where you see Database, select URI. 3. Update the path (Example: /tmp/\*) 4. Add the users and group and save. 5. Retry the insert query. |
| **HDFS** | **N/A** | HDFS should support for multiple KMS Uris | **Previous Behavior:**dfs.encryption.key.provider.uri property was used to configure the KMS provider path.  **New Behavior:**dfs.encryption.key.provider.uri is now deprecated in favor of hadoop.security.key.provider.path to configure the KMS provider path. |
| **Zeppelin** | [**ZEPPELIN-3271**](https://issues.apache.org/jira/browse/ZEPPELIN-3271) | Option for disabling scheduler | **Component Affected:**Zeppelin-Server  **Previous Behavior:**In previous releases of Zeppelin, there was no option for disabling scheduler.  **New Behavior:**By default, users will no longer see scheduler, as it is disabled by default.  **Workaround/Expected Customer Action:** If you want to enable scheduler, you will need to add azeppelin.notebook.cron.enable with value oftrue under custom zeppelin site in Zeppelin settings from Ambari. |

# Known Issues

* **Spark 2.3**
  + [[SPARK-23523](https://issues.apache.org/jira/browse/SPARK-23523)][SQL] Incorrect result caused by the rule OptimizeMetadataOnlyQuery
  + [[SPARK-23406](https://issues.apache.org/jira/browse/SPARK-23406)] Bugs in stream-stream self-joins
  + Spark sample notebooks are not available when Azure Data Lake Storage (Gen2) is default storage of the cluster.
* **Enterprise Security Package**
  + Spark Thrift Server does not accept connections from ODBC clients.
    - Workaround steps
      * Wait for about 15 minutes after cluster creation.
      * Check ranger UI for existence of hivesampletable\_policy.
      * Restart Spark service.
      * STS connection should work now.
* **Workaround for Ranger service check failure**

([RANGER-1607](https://issues.apache.org/jira/browse/RANGER-1607): Workaround for Ranger service check failure while upgrading to HDP 2.6.2 from previous HDP versions.

|  |  |
| --- | --- |
|  | **Note** |
| Only when Ranger is SSL enabled. | Only when Ranger is SSL enabled. |

This issue arises when attempting to upgrade to HDP-2.6.1 from previous HDP versions through Ambari. Ambari uses a curl call to do a service check to Ranger service in Ambari. If the JDK version used by Ambari is JDK-1.7, the curl call will fail with the below error:

curl: (35) error:14077410:SSL routines:SSL23\_GET\_SERVER\_HELLO:sslv3 alert handshake failure

The reason for this error is the tomcat version used in Ranger is Tomcat-7.0.7\*. Using JDK-1.7 conflicts with default ciphers provided in Tomcat-7.0.7\*.

You can resolve this issue in two ways:

* Update the JDK used in Ambari from JDK-1.7 to JDK-1.8 (see the section [Change the JDK Version](https://docs.hortonworks.com/HDPDocuments/Ambari-2.2.0.0/bk_ambari_reference_guide/content/ch_changing_the_jdk_version_on_an_existing_cluster.html) in the Ambari Reference Guide).
* If you want to continue supporting a JDK-1.7 environment:
  1. Add the property ranger.tomcat.ciphers in the ranger-admin-site section in your Ambari Ranger configuration with the below value:

SSL\_RSA\_WITH\_RC4\_128\_MD5, SSL\_RSA\_WITH\_RC4\_128\_SHA, TLS\_RSA\_WITH\_AES\_128\_CBC\_SHA, SSL\_RSA\_WITH\_3DES\_EDE\_CBC\_SHA

* 1. If you environment is configured for Ranger-KMS, add the property ranger.tomcat.ciphers in theranger-kms-site section in your Ambari Ranger configuration with the below value:

SSL\_RSA\_WITH\_RC4\_128\_MD5, SSL\_RSA\_WITH\_RC4\_128\_SHA, TLS\_RSA\_WITH\_AES\_128\_CBC\_SHA, SSL\_RSA\_WITH\_3DES\_EDE\_CBC\_SHA

|  |  |
| --- | --- |
|  | **Note** |
| The noted values are working examples and may not be indicative of your environment. Ensure that the way you set these properties matches how your environment is configured. | The noted values are working examples and may not be indicative of your environment. Ensure that the way you set these properties matches how your environment is configured. |

* **RangerUI: Escape of policy condition text entered in the policy form**

**Component Affected:** Ranger

#### **​Description of Problem**

If a user wants to create policy with custom policy conditions and the expression or text contains special characters, then policy enforcement will not work. Special characters are converted into ASCII before saving the policy into the database.

**Special Characters:** & < > " ` '

For example, the condition tags.attributes['type']='abc' would get converted to the following once the policy is saved:User can see the policy condition with these chars by opening policy in edit mode.

tags.attds[&#x27;dsds&#x27;]=&#x27;cssdfs&#x27;

You can see the policy condition with these characters by opening the policy in edit mode.

#### **​Workaround**

##### **​Option #1: Create/Update policy via Ranger Rest API**

REST URL: http://<host>:6080/service/plugins/policies

**Creating policy with policy condition:**

The below example will create policy with tags as `tags-test` and assign it to `public` group with policy condition astags.attr['type']=='abc' by selecting all hive component permission likeselect,update,create,drop,alter,index,lock,all.

**Example:**

curl -H "Content-Type: application/json" -X POST http://localhost:6080/service/plugins/policies -u admin:admin -d '{"policyType":"0","name":"P100","isEnabled":true,"isAuditEnabled":true,"description":"","resources":{"tag":{"values":["tags-test"],"isRecursive":"","isExcludes":false}},"policyItems":[{"groups":["public"],"conditions":[{"type":"accessed-after-expiry","values":[]},{"type":"tag-expression","values":["tags.attr['type']=='abc'"]}],"accesses":[{"type":"hive:select","isAllowed":true},{"type":"hive:update","isAllowed":true},{"type":"hive:create","isAllowed":true},{"type":"hive:drop","isAllowed":true},{"type":"hive:alter","isAllowed":true},{"type":"hive:index","isAllowed":true},{"type":"hive:lock","isAllowed":true},{"type":"hive:all","isAllowed":true}]}],"denyPolicyItems":[],"allowExceptions":[],"denyExceptions":[],"service":"tagdev"}'

**Update existing policy with policy condition:**

The below example will update policy with tags as `tags-test` and assign it to `public` group with policy condition astags.attr['type']=='abc' by selecting all hive component permission likeselect,update,create,drop,alter,index,lock,all.

REST URL: http://<host-name>:6080/service/plugins/policies/<policy-id>

**Example:**

curl -H "Content-Type: application/json" -X PUT http://localhost:6080/service/plugins/policies/18 -u admin:admin -d '{"id":18,"guid":"ea78a5ed-07a5-447a-978d-e636b0490a54","isEnabled":true,"createdBy":"Admin","updatedBy":"Admin","createTime":1490802077000,"updateTime":1490802077000,"version":1,"service":"tagdev","name":"P0101","policyType":0,"description":"","resourceSignature":"e5fdb911a25aa7f77af5a9546938d9ed","isAuditEnabled":true,"resources":{"tag":{"values":["tags"],"isExcludes":false,"isRecursive":false}},"policyItems":[{"accesses":[{"type":"hive:select","isAllowed":true},{"type":"hive:update","isAllowed":true},{"type":"hive:create","isAllowed":true},{"type":"hive:drop","isAllowed":true},{"type":"hive:alter","isAllowed":true},{"type":"hive:index","isAllowed":true},{"type":"hive:lock","isAllowed":true},{"type":"hive:all","isAllowed":true}],"users":[],"groups":["public"],"conditions":[{"type":"ip-range","values":["tags.attributes['type']=abc"]}],"delegateAdmin":false}],"denyPolicyItems":[],"allowExceptions":[],"denyExceptions":[],"dataMaskPolicyItems":[],"rowFilterPolicyItems":[]}'

##### **​Option #2: Apply Javascript changes**

Steps to update JS file :

1. 1. Find out PermissionList.js file under /usr/hdp/current/ranger-admin
2. 2. Find out definition of renderPolicyCondtion function (line no:404).
3. 3. Remove below line from that function i.e under display function(line no:434)

val = \_.escape(val);//Line No:460

After removing the above line, the Ranger UI will allow you to create policies with policy condition that can contain special characters and policy evaluation will be successful for the same policy.

# Deprecation

* **OMS Portal:** We have removed the link from HDInsight resource page that was pointing to OMS portal. Log Analytics initially used its own portal called the OMS portal to manage its configuration and analyze collected data. All functionality from this portal has been moved to the Azure portal where it will continue to be developed. HDInsight has deprecated the support for OMS portal. Customers will use HDInsight Log Analytics integration in Azure portal.
* **Spark 2.3**
  + <https://spark.apache.org/releases/spark-release-2-3-0.html#deprecations>

# ​Upgrading

All of these features are available in HDInsight 3.6. To get the latest version of Spark, Kafka and R Server (Machine Learning Services), please choose the Spark, Kafka, ML Services version when you [create a HDInsight 3.6 cluster](https://docs.microsoft.com/en-us/azure/hdinsight/hdinsight-hadoop-provision-linux-clusters). To get support for ADLS, you can choose the ADLS storage type as an option. Existing clusters will not be upgraded to these versions automatically.

All new clusters created after June 2018 will automatically get the 1000+ bug fixes across all the open source projects. Please follow [this](https://docs.microsoft.com/en-us/azure/hdinsight/hdinsight-upgrade-cluster) guide for best practices around upgrading to a newer HDInsight version.