

# DesignDocs

## Hive Design Documents

Proposals that appear in the "Completed" and "In Progress" sections should include a link to a JIRA ticket

### Completed

- [Views \(HIVE-1143\)](#)
- [Partitioned Views \(HIVE-1941\)](#)
- [Storage Handlers \(HIVE-705\)](#)
- [HBase Integration](#)
- [HBase Bulk Load](#)
- [Locking \(HIVE-1293\)](#)
- [Indexes \(HIVE-417\)](#)
- [Bitmap Indexes \(HIVE-1803\)](#)
- [Filter Pushdown \(HIVE-279\)](#)
- [Table-level Statistics \(HIVE-1361\)](#)
- [Dynamic Partitions](#)
- [Binary Data Type \(HIVE-2380\)](#)
- [Decimal Precision and Scale Support](#)
- [HCatalog \(formerly Howl\)](#)
- [HiveServer2 \(HIVE-2935\)](#)
- [Column Statistics in Hive \(HIVE-1362\)](#)
- [List Bucketing \(HIVE-3026\)](#)
- [Group By With Rollup \(HIVE-2397\)](#)
- [Enhanced Aggregation, Cube, Grouping and Rollup \(HIVE-3433\)](#)
- [Optimizing Skewed Joins \(HIVE-3086\)](#)
- [Correlation Optimizer \(HIVE-2206\)](#)
- [Hive on Tez \(HIVE-4660\)](#)
  - [Hive-Tez Compatibility](#)
- [Vectorized Query Execution \(HIVE-4160\)](#)
- [Cost Based Optimizer in Hive \(HIVE-5775\)](#)
- [Atomic Insert/Update/Delete \(HIVE-5317\)](#)
- [Transaction Manager \(HIVE-5843\)](#)
- [SQL Standard based secure authorization \(HIVE-5837\)](#)
- [Hybrid Hybrid Grace Hash Join \(HIVE-9277\)](#)
- [LLAP Daemons \(HIVE-7926\)](#)
- [Support for Hive Replication \(HIVE-7973\)](#)

### In Progress

- [Column Level Top K Statistics \(HIVE-3421\)](#)
- [Hive on Spark \(HIVE-7292\)](#)
- [Hive on Spark: Join Design \(HIVE-7613\)](#)
- [Improve ACID Performance – download docx file \(HIVE-14035, HIVE-14199, HIVE-14233\)](#)
- [Query Results Caching \(HIVE-18513\)](#)
- [Default Constraint \(HIVE-18726\)](#)
- [Different TIMESTAMP types \(HIVE-21348\)](#)

### Proposed

- [Spatial Queries](#)
- [Theta Join \(HIVE-556\)](#)
- [theta join and cross product proposal - rough draft](#)
- [JDBC Storage Handler](#)
- [MapJoin Optimization](#)
- [Proposal to standardize and expand Authorization in Hive](#)
- [Dependent Tables \(HIVE-3466\)](#)
- [AccessServer](#)
- [Type Qualifiers in Hive](#)
- [MapJoin & Partition Pruning \(HIVE-5119\)](#)
- [Updatable Views \(HIVE-1143\)](#)
- [Phase 2 of Replication Development \(HIVE-14841\)](#)
- [Subqueries in SELECT \(HIVE-16091\)](#)
- [DEFAULT keyword \(HIVE-19059\)](#)
- [Hive remote databases/tables](#)

### Incomplete

- [Authorization](#) (Committed but not secure/deployable – see [Disclaimer](#))

## Abandoned

- [Hive across Multiple Data Centers \(Physical Clusters\)](#)
- [Metastore on HBase \(HIVE-9452\)](#)

## Other

- [Security Notes](#)
- [Hive Outer Join Behavior](#)
- [Metastore ER Diagram](#)