**How to Improve Dashboard Performance**

1. By using Extract connection instead of live connection to the dashboard.
2. Minimize the number of Joins.
3. Use Data Source filter.
4. Unused Fields should be removed to reduce the loading time.
5. Rollup by aggregating or filtering to maintain the required data granularity.
6. Remove hierarchies for invisible dimensions.
7. Remove un-necessary calculated fields.
8. Avoiding more number of Custom shapes in dashboard.
9. Doesn’t use large file size image, this will increase the loading time.
10. Strings and Date fields are slow numbers and Booleans are fast.
11. If it is slow in data source, it will be slow in tableau desktop and if it will be slow in tableau desktop it will be slow in tableau server.
12. Upgrading the newest version it will be faster without anything needed.

**Calculations**

1. Booleans and integers are faster than strings and dates.
2. Min and Max functions are performing better than AVG and ATTR ().
3. When possible use native tableau features – bins, sets, groups, custom date fields, combined fields and aliases - instead of using calculations.
4. Use optimized functions like MAKEDATE, DATEPARSE or CONTAINS if possible, rather than more complicated manual calculations using date functions.
5. COUNTD is one of the slowest function types, avoid when possible.
6. If a table calculation is performing badly, if it is expressed via LOD expression and vice versa.

**Filtering**

1. Filtering is one of the most common causes of poorly performing workbooks and dashboards.
2. Use extract and data source filter to limit the amount of data being brought into tableau.
3. Filters are more efficient when the data source is indexed.
4. Context filters are evaluated before other filters in the view and should be used to help force an order of operations, but they no longer help improve query performance.
5. Be aware that using Keep only and Exclude to filter out discrete fields are performance heavy.
6. Filtering on a Range of values is faster than filtering large amount of itemized discrete fields.
7. Cross data base filters can require multiple queries when values are updated.

Enable the **Show Apply Button** option on filters to let users apply the filter after making their selections.

1. The **Only Relevant Values** option creates a query each time the other filters are changed. For dashboard that guided analytics, try using **Filter Actions** instead.
2. Apply filters to multiple worksheets creates multiple queries.

**Building views and dashboards**

1. Reduce the number of marks in the view. Only whatever you need the fields and filters.
2. Turnoff automatic updates when building a view setup multiple steps before asking tableau to perform the actions.
3. Try to use same LOD’s on multiple sheets on dashboards.
4. Used fixed sixe the dashboard.