

The time series workload

Time series data has a few properties that make it very different from other data workloads. Data lifecycle management, summarization and large range scans of many records are what separate time series from other database use cases.

With time series, it's common to request a summary from a larger period of time. This requires going over a range of data points to perform some computation like a percentile to get a summary of the underlying series to the user. This kind of workload is very difficult to optimize for a distributed key value store. InfluxDB is optimized for exactly this use case, giving millisecond level query times over months of data.

With time series, it's also common to keep high-precision data around for a short period of time. This data is aggregated and downsampled into longer-term, trend data. This means that for every data point that goes into the database, it will have to be deleted after its period of time is up.

This kind of data lifecycle management is difficult for application developers to implement on top of the typical database. They must devise schemes for cheaply evicting large sets of data and constantly summarizing that data at scale.

InfluxDB is designed as a time series database with solutions built-in for summarization and data lifecycle management at a large scale. These come out of the box with no application level code required from the developer. To learn more, see the [continuous queries](#) and [retention policies](#) documentation.

