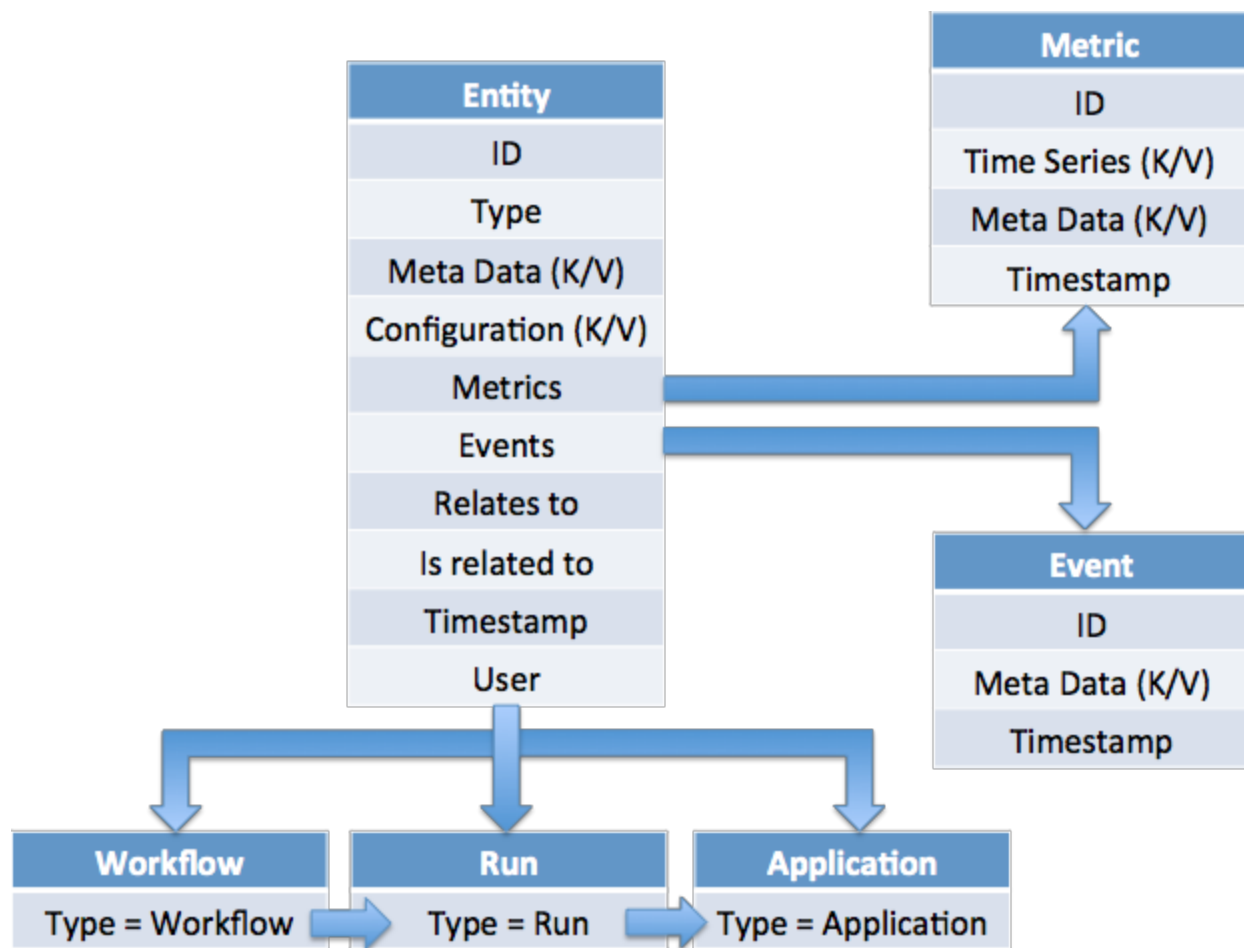


# Timeline service next gen data model



Above is a rough diagram of the data model:

- It inherits from the data model of the timeline service of current gen, and is based the entity/event schema.
- Learning from the experience of previous data model, the relationship between entities could be directional.
- Configuration could be a key/value pair section of an entity.
- We need to identify the user of an entity.
- To accommodate the data model proposed in the timeline service next gen design doc, we can predefine the special entity - Workflow, Run and Application, and maintains the parent-child relationship between every two adjacent concepts.
- We add the support of the lineage from workflow to application while we open the option to further define fine-granularity entity in the scope of an application.
- In addition to the events, an entity may have a couple of metrics, each of which contains the description as well as the time series. Typically the metric can be

associated to an application entity, but we can still aggregate the metrics of all applications in a workflow.

Some issues to address:

- User field may not need to be tied with each entity as we preserve the domain based access control in the timeline service next gen too.
- Is Cluster necessary to be a predefined special entity? If the timeline service is going to serve federal clusters, predefined cluster entity is more structured. The alternative way is to put the cluster information as the meta data of workflow/run/application entity.
- The fields for index. In the previous data model, we can declare some info as the primary filters to speed up search. However, it's hard to use it correctly, and has constraints when updating. We need to rethink about it too.