APIS AND ACCESS

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Optimistic Concurrency

The default serialization for API calls must be JSON. There is an effort to use Google's *protobuf* serialization, but this remains experimental. While we may work with files in a YAML format, they are converted to and from JSON.

Kubernetes uses the **resourceVersion** value to determine API updates and implement optimistic concurrency. In other words, an object is not locked from the time it has been read until the object is written.

Instead, upon an updated call to an object, the **resourceVersion** is checked, and a **409 CONFLICT** is returned, should the number have changed. The **resourceVersion** is currently backed via the **modifiedIndex** parameter in the etcd database, and is unique to the namespace, kind, and server. Operations which do not change an object, such as **WATCH** or **GET**, do not update this value.