KIP-477: Add PATCH method for connector config in Connect REST API

Status

Current state: Under Discussion

Discussion thread: here

JIRA: *here [Change the link from KAFKA-1 to your own ticket]*

Please keep the discussion on the mailing list rather than commenting on the wiki (wiki discussions get unwieldy fast).

Motivation

Connect REST API provides an endpoint `/connectors/<id>/config` for a connector's configuration. The endpoint allows to `GET` a connector's configuration and to `PUT` a new configuration. The only way to update an existing connector's configuration is to get, modify, and put it using this endpoint. This may cause two issues:

1. Potential lost modifications due to non-atomicity of the update. The configuration can be changed between `GET` and `PUT` in an unrelated way. These changes will be overwritten.
2. Inconvenience, especially when working in a command line using tools like cURL.

HTTP has PATCH method specifically designed for atomic partial updates. It can solve or mitigate the listed issues.

Public Interfaces

We will add `PATCH` method to `/connectors/<id>/config` endpoint in Connect REST API.

Proposed Changes

We will add `PATCH` method definition into `ConnectorsResource`, which will call the actual logic in `Herder` and its child classes `StandaloneHerder` and `DistributedHerder`.

There is a draft pull request: https://github.com/apache/kafka/pull/6934

Compatibility, Deprecation, and Migration Plan

This change is backward compatible.

Rejected Alternatives

No rejected alternatives.