package:http as the recommendedHTTP client

(This is a publicly viewable document!)

Proposal

The Dart team should promise long-term support for package:http, package:cupertino_http, and package:cronet_http and encourage package:http usage.

Rationale

There are a wide variety of features that developers have requested for dart:io HttpClient that can't be implemented without significant effort. For example:

- Use of encrypted keys in the Android keystore (#50669)
- Use of the platform VPN (#41376)
- Use of HTTP3/QUIC (#38595)

package:http offers an abstract http Client interface and a mechanism where users can select the implementation that they want on a per-platform basis.

If we encourage developers to start their projects using package:http, then they can easily switch Client implementation (e.g. to package:http, package:cupertino_http) if needed. Hopefully the Dart community will develop solutions to fill in gaps in the offerings that we provide e.g. a Flutter user developed a package:http Client implementation using OkHttp so that the Android KeyStore can be used.

Things we need to do

- Signal that package:http, package:cupertino_http, and package:cronet_http are going to be supported in the long term by releasing a 1.0 version and publishing them on dart.dev.
- Add support for viewing non-HttpClient traffic in the devtools "Network" tab (see #4829)
- Strengthen the recommendation to use package:http on the dart:io HttpClient landing page and eventually deprecated HttpClient.

- Add a better landing page for package:http that:
    - Explains the value of the package
    - Explains how to choose a Client implementation (maybe a feature table for IOClient, cronet_http, cupertino_http?)
    - Explains how to use package:http with flutter
    - Maybe explain how to write a new Client
- Fancy announcement/blog post