**Suricata - Optimization #3524**

**Remove unsafe Rust code for ALPROTO_X constants**

03/11/2020 03:51 PM - Philippe Antoine

<table>
<thead>
<tr>
<th>Status:</th>
<th>Assigned</th>
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<tr>
<td>Priority:</td>
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<tr>
<td>Assignee:</td>
<td>Nick Price</td>
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<tr>
<td>Category:</td>
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<td>Target version:</td>
<td>TBD</td>
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<td>Effort:</td>
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### Description

Now, these constants are defined in C enumeration `AppProtoEnum`

In Rust, we use a global variable ("static mut") whose value we get as a return of a C function call. As a global variable, we must use `unsafe` every time we read it.

We should either:
- export these from C to Rust with bindgen
- move this enum to Rust and export it to C with cbindgen (cbindgen is already used)

### History

**#1 - 06/06/2020 08:19 PM - Nick Price**

Got started on this - moved the enum to Rust and am exporting it with cbindgen

Looks like there are a few "cyclic header dependencies" that will have to be sorted out - other than that it's just a question of safely accessing/mutating the global variables

**#2 - 06/06/2020 09:06 PM - Philippe Antoine**

Thanks for working on this and letting us know

**#3 - 06/07/2020 06:49 AM - Victor Julien**

- Status changed from New to Assigned
- Assignee set to Nick Price
- Target version set to TBD

**#4 - 06/08/2020 03:31 PM - Nick Price**

Think I've got everything sorted except the header cross-dependencies - once that's done I'll run the test suites and make a PR - hopefully what I did makes sense :P