

bcc Hacking Stuff

Map in Map Issue

<https://github.com/iovisor/bcc/issues/1318>

The Basics

- we need a file descriptor to an inner template map
 - bcc already supports BPF_PINNED_MAP
 - maybe this could be useful?
- possibly should have a way to *free* the template map after it is created

Creation Flow

1. define inner map
2. lookup inner map fd by name
3. define outer map using attributes of inner map
4. maybe free inner map fd

Important Files

- `src/python/bcc/table.py`
 - python objects to refer to BPF tables
 - already defines ID for `hash_of_maps`
 - still need to write the class
- `src/cc/export/helpers.h`
 - define helper macros for BPF programs
 - need to add macros for `HASH_OF_MAPS` here
- `src/cc/frontends/clang/b_frontend_action.cc`
 - rewriter stuff (see palmtenor's issue above)
- maybe more

Some Diffs That Might Be Useful

- add btf support for maps
- add support for devmap (this seems to be cc API exclusive but could still be useful)
- add lru hash and lru per cpu hash
- add devmap and cpumap (**this is probably the most helpful so far**)