**Resolving issue when running `npm run Install\_cli`**

**Error:**

* ‘gyp (permission) ERR!’

**Testing Environment:**

* Virtual Box VM Ubuntu 18.04 x86\_64 GNU/Linux

**Solution** (no permission or npm config prefix setting needed):

1. Local installation of caliper-cli (in the ../caliper-samples directory)
2. Using node.js v8.16.0

**Solution Details:**

[current work directory: *./caliper/packages/caliper-tests-integration*]

1. Change the node.js version to v8.16.0 first (v10 has some issue now, but will be resolved when the npm package is published):
   1. `$ sudo n 8.16.0`
2. Following the step-by-step guide (no the One-step installation)
   1. `npm run cleanup`
   2. `npm run start\_verdaccio`
   3. `npm run publish\_packages`
   4. **STOP IN HERE**, and *switch directory using the following cmd!*
3. Change working directory:
   1. `$ cd ../caliper-samples/`
4. Run command to locally install caliper-cli (better for testing different versions of Hyperledger frameworks too!):
   1. `$ npm install --registry [http://localhost:4873](https://hangouts.google.com/_/elUi/chat-redirect?dest=http%3A%2F%2Flocalhost%3A4873%2F) caliper-cli`
5. (optional) If encounter gRPC issue/error:
   1. Error: The gRPC binary module was not installed.
   2. Solution: `$ npm rebuild`

**Explanations**:

* Since the `npm run install\_cli` automatically change the npm config prefix into the default prefix of npm, we cannot using the prefix change technique to circumvent the installation error.
* Thus we just locally install the testing caliper-cli in the ‘caliper-samples’ folder, which resolves the permission issue.
* Node v10 has some compatibility issue with caliper-cli installation, thus we use v8 to resolve those issues for now. In the future, all the caliper-cli npm packages will using docker to prevent all the configuration issues in all platforms.

**Play around** (<https://github.com/hyperledger/caliper/issues/488#issuecomment-510526267)>:

* In the ‘caliper-samples’ folder:
  + `$ npx caliper benchmark run -w . -c benchmark/simple/config-linear-rate.yaml -n network/fabric-v1.4.1/raft/fabric-ccp-node-tls.yaml`
* Note: Make sure to run docker demon, and let the user to be able to run without `sudo`.