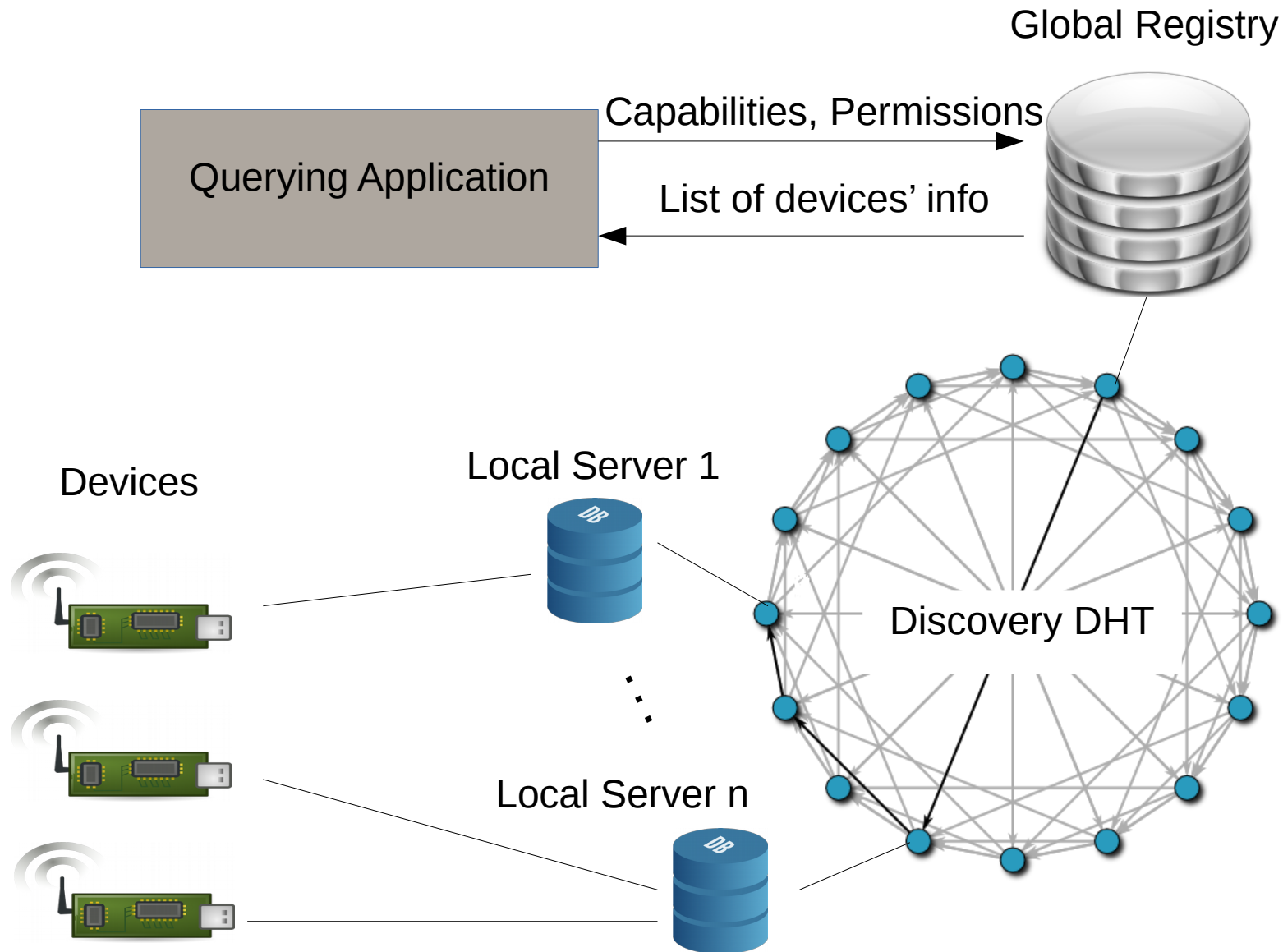
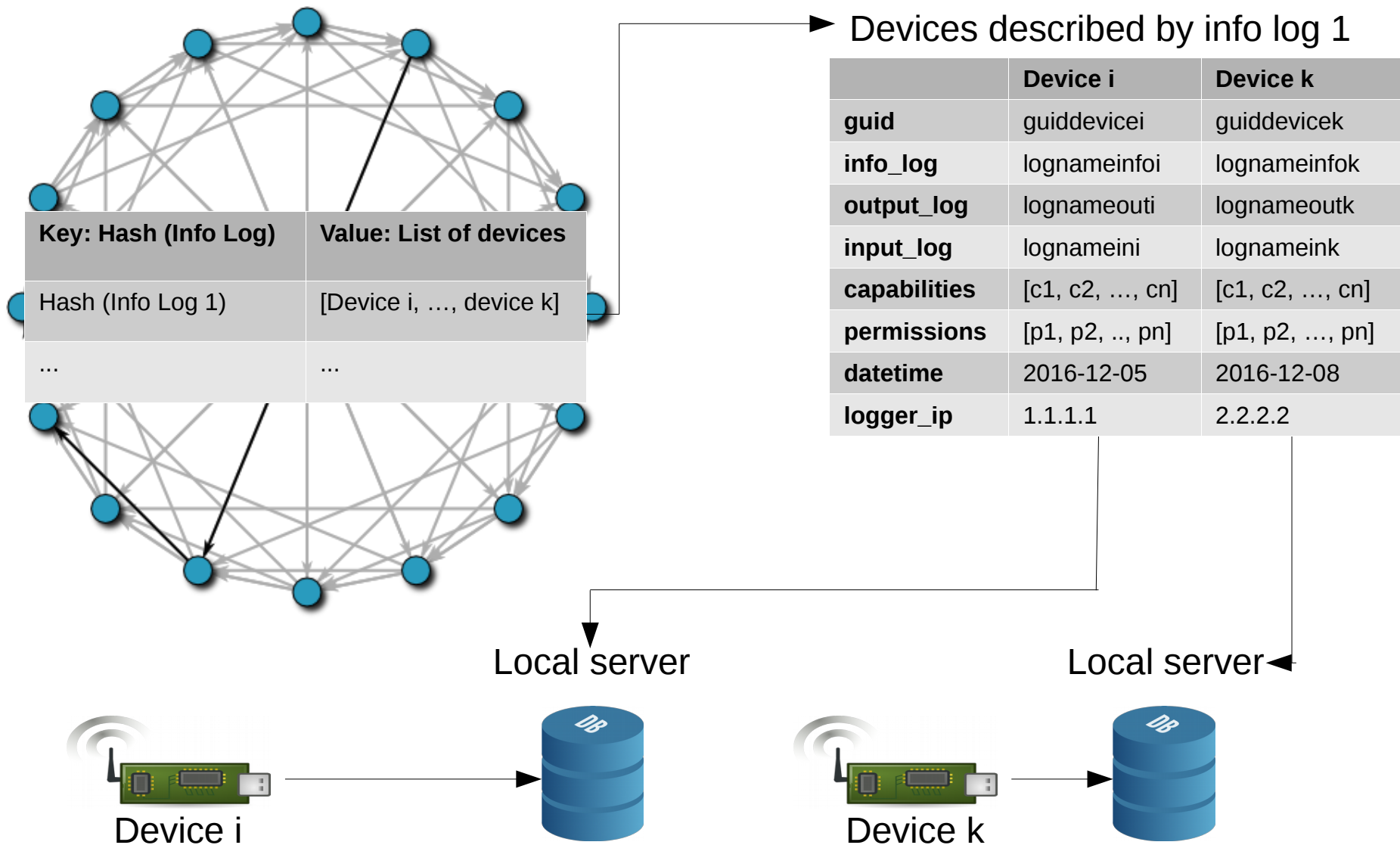


# GDP Discovery Service Overview

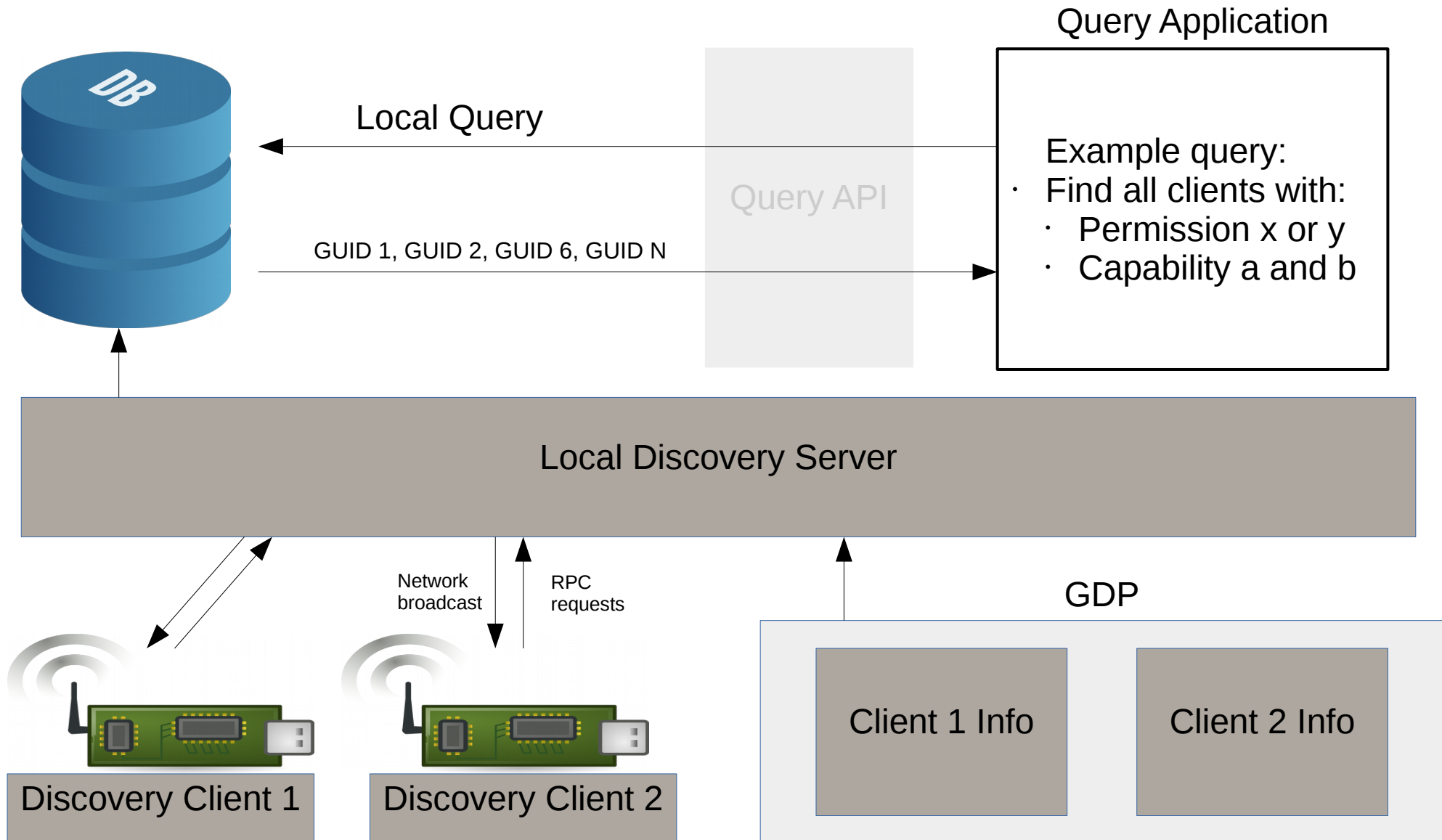
# Query



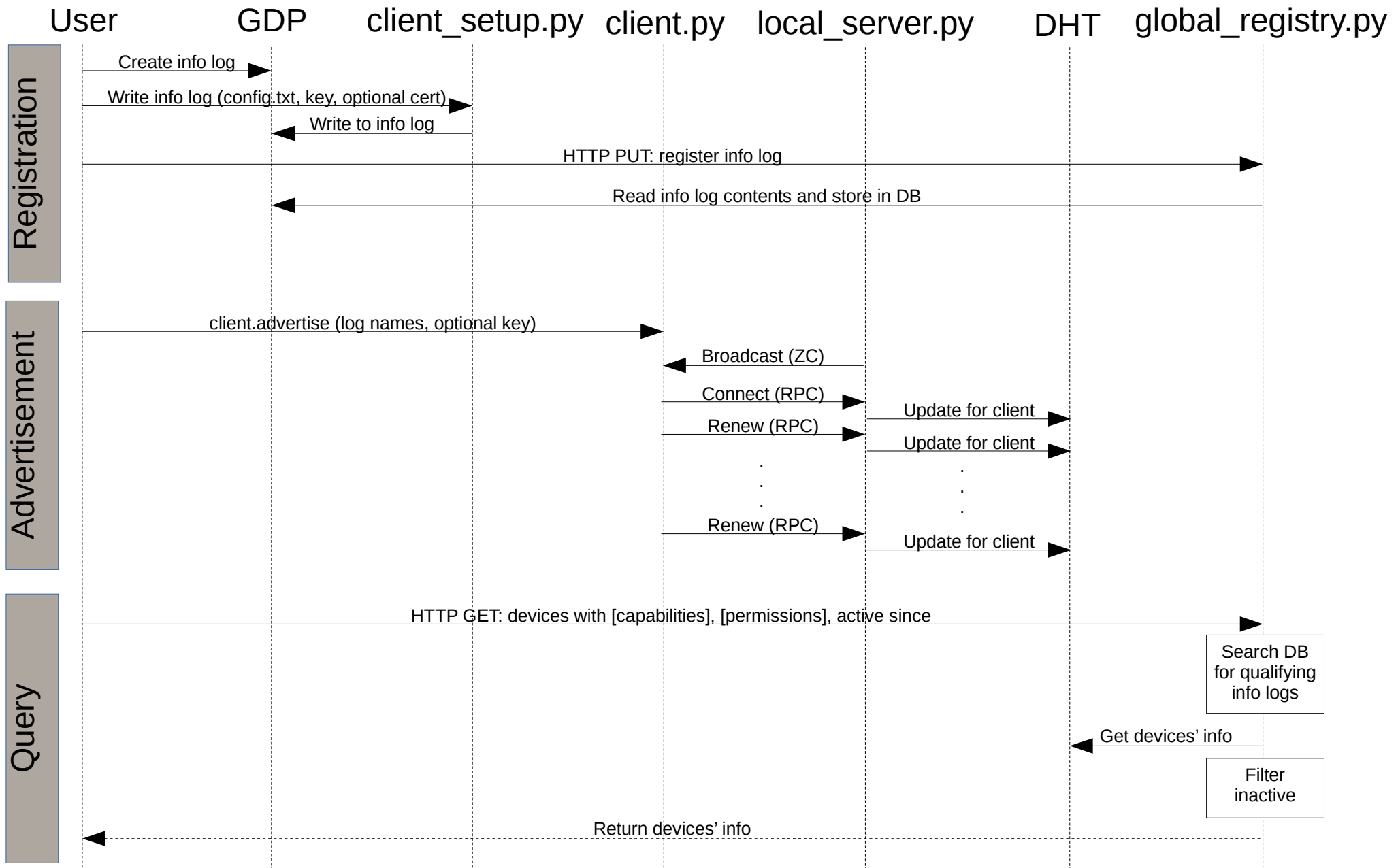
# Discovery DHT



# Discovery service: current state



# Sequence Diagram

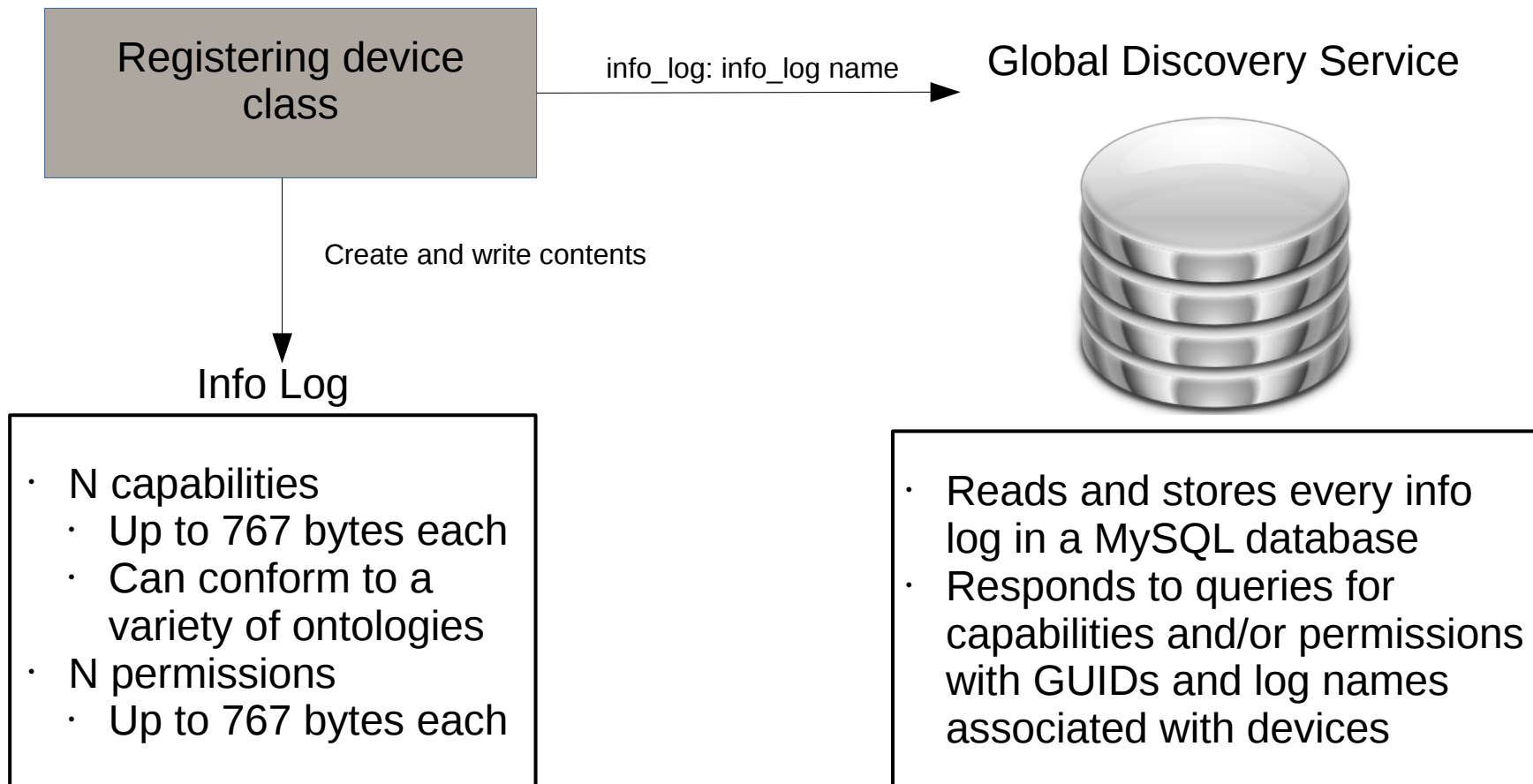


# Potential Improvements

- Automate info log creation and registration with the global registry
- Build global registry UI
- Choose ontology and optimize global registry search

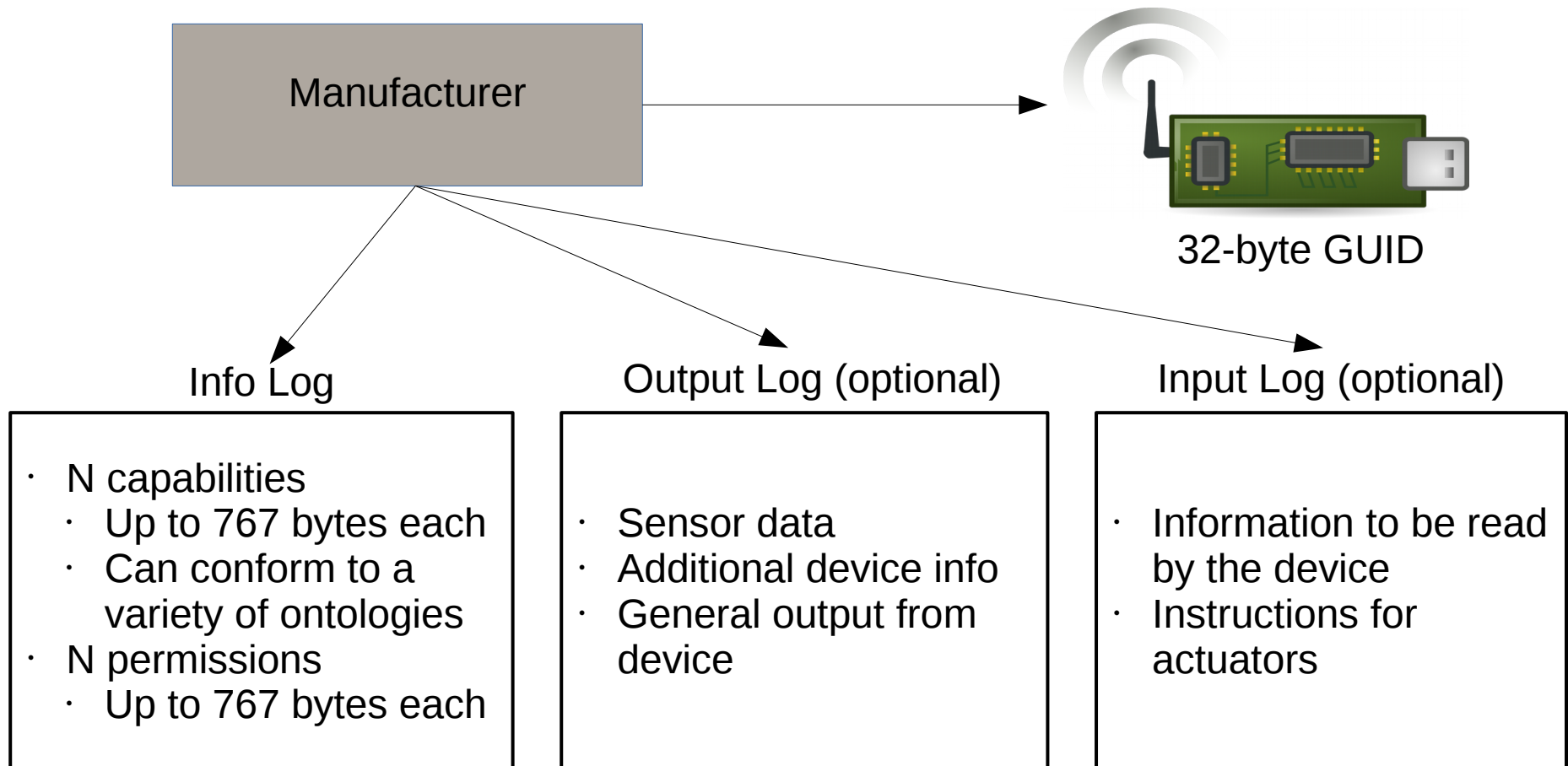
# Appendix

# Initial Info Log Registration





# Manufacturer/User created logs



\*Currently logs must be created manually using GCL create, but a better API should be developed in the future

# Using Global Registry API

The screenshot shows a REST client interface with the following details:

- Method:** GET
- URL:** `http://gdp.cs.berkeley.edu:11780/rest/v1/devices?capability=any&permission=p1234&permission=public&active_since=2016-12-3 22:08:24.130922`
- Buttons:** Send, Save
- Authorization:** No Auth
- Status:** 200 OK
- Time:** 340 ms
- Body:** JSON (Pretty)

The response body is a JSON array of three device objects:

```
[
  {
    "logger_ip": "128.32.33.222",
    "capabilities": [
      "acceleration_advertisement",
      "acceleration_interval",
      "humidity_percent",
      "light_lux",
      "pressure_pascals",
      "temperature_celcius"
    ],
    "datetime": "2016-12-08 13:03:07.284228",
    "permissions": [
      "public"
    ],
    "guid": "device/BLEES/c098e530005c00000000",
    "output_log": "edu.berkeley.eecs.swarnlab.device.c098e5300",
    "info_log": "edu.berkeley.eecs.jordan.nov14.blees_ill"
  },
  {
    "logger_ip": "128.32.33.222",
    "capabilities": [
      "acceleration_advertisement",
      "acceleration_interval",
      "humidity_percent",
      "light_lux",
      "pressure_pascals",
      "temperature_celcius"
    ],
    "datetime": "2016-12-08 13:03:12.946532",
    "permissions": [
      "public"
    ],
    "guid": "device/BLEES/c098e530007a00000000",
    "output_log": "edu.berkeley.eecs.swarnlab.device.c098e5300",
    "info_log": "edu.berkeley.eecs.jordan.nov14.blees_ill"
  },
  {
    "logger_ip": "128.32.33.222",
    "capabilities": [
      "acceleration_advertisement",
      "acceleration_interval",
      "humidity_percent",
      "light_lux",
      "pressure_pascals",
      "temperature_celcius"
    ],
    "datetime": "2016-12-08 13:03:07.485218",
    "permissions": [
      "public"
    ],
    "guid": "device/BLEES/c098e530007800000000",
    "output_log": "edu.berkeley.eecs.swarnlab.device.c098e5300",
    "info_log": "edu.berkeley.eecs.jordan.nov14.blees_ill"
  }
]
```