Why Aren't We Using YANG/RESTCONF for All Software Management?

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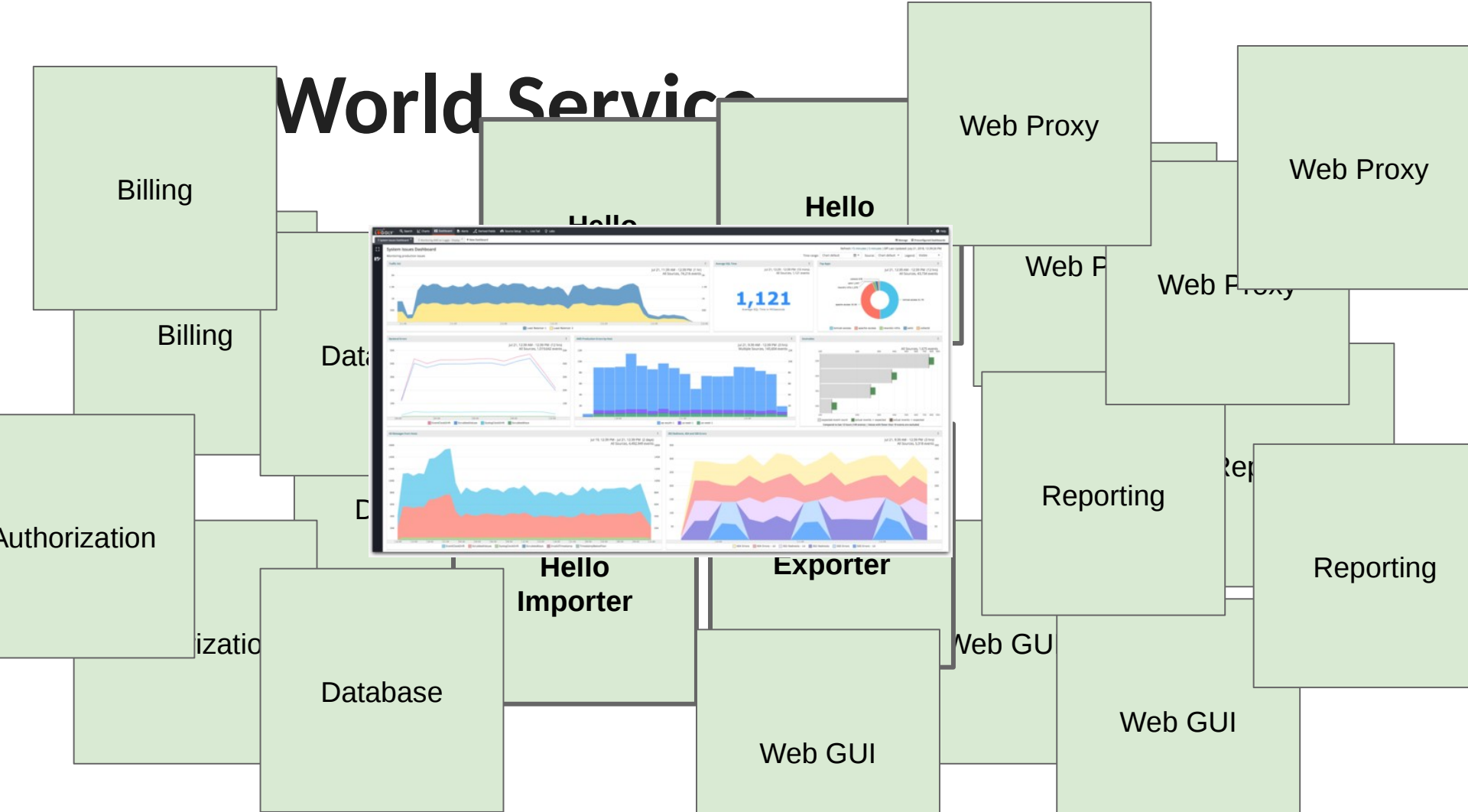
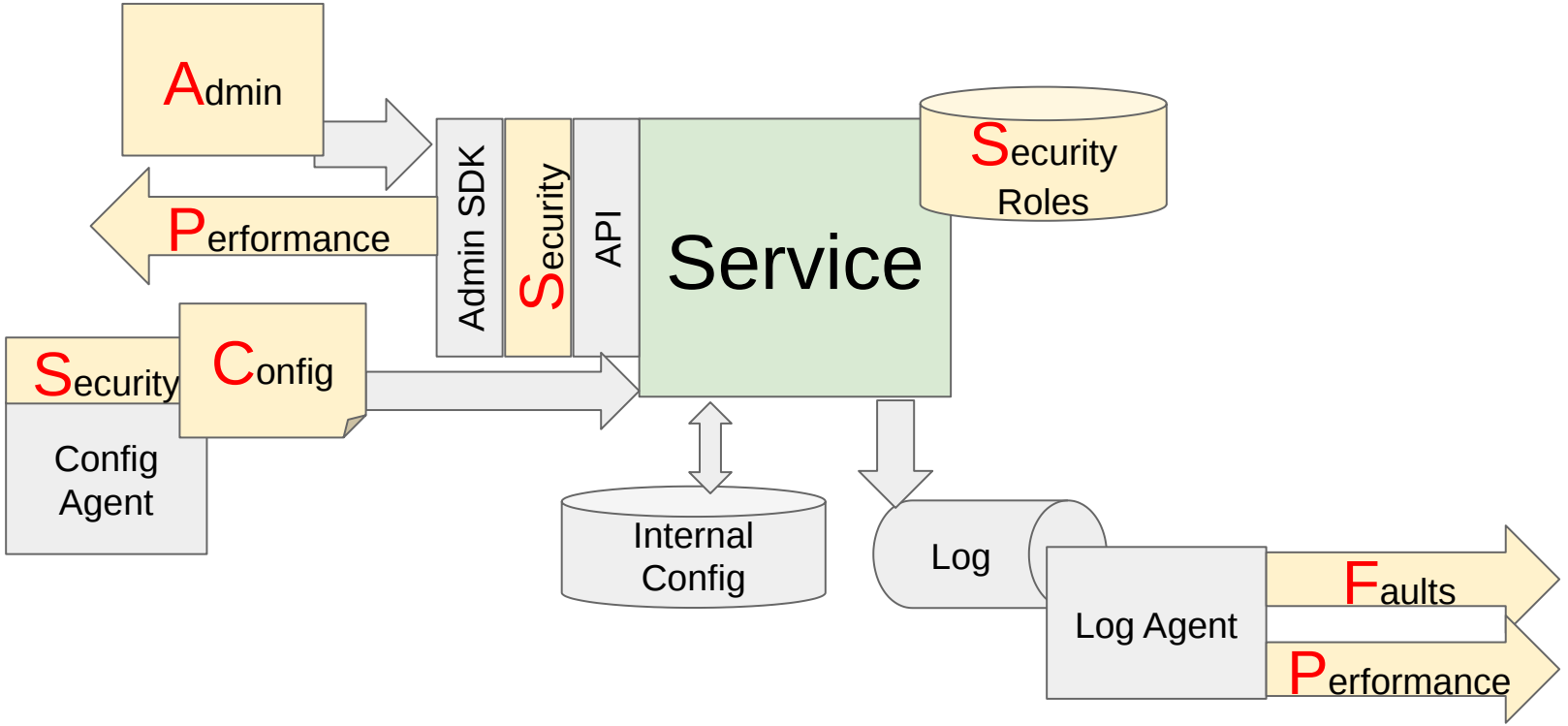
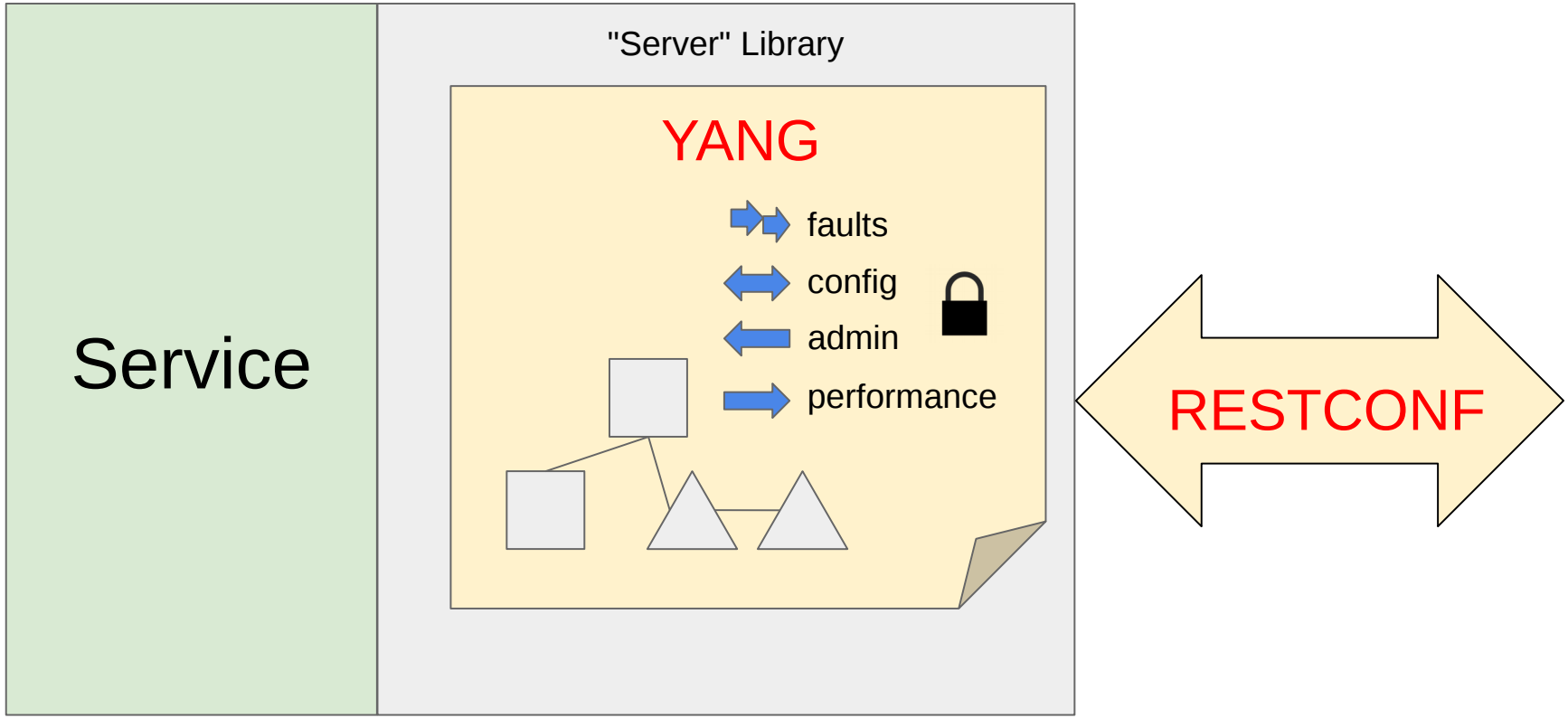
World Service



Typical Integration



Standards


Service
"Server" Library
YANG
faults
config
admin
performance
RESTCONF

Scope

More software developers doing DevOps than Application Development

-- 2018 State of DevOps Report/PuppetLabs

Getting Started - Bottom up

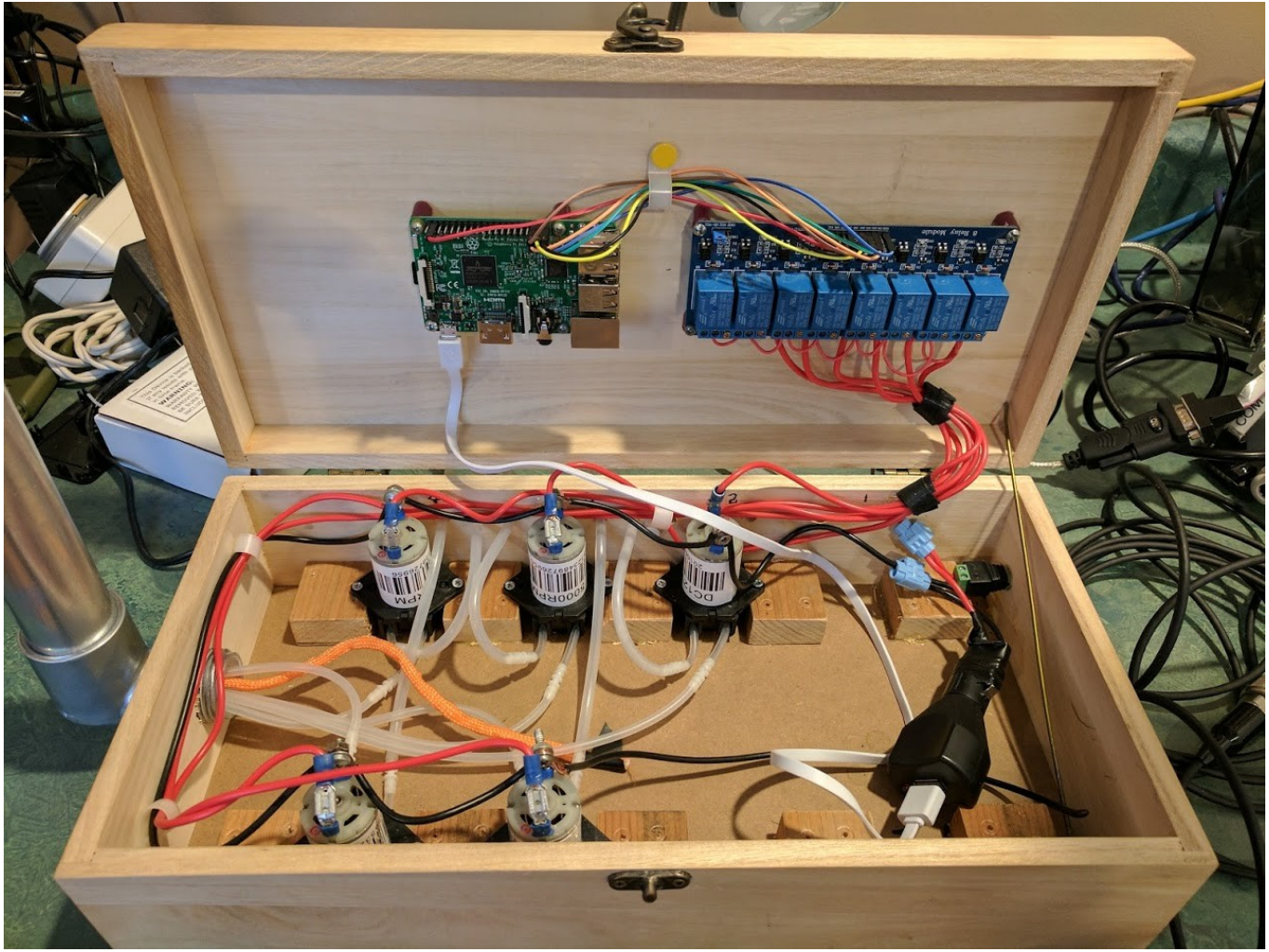
2015 started implementation on a

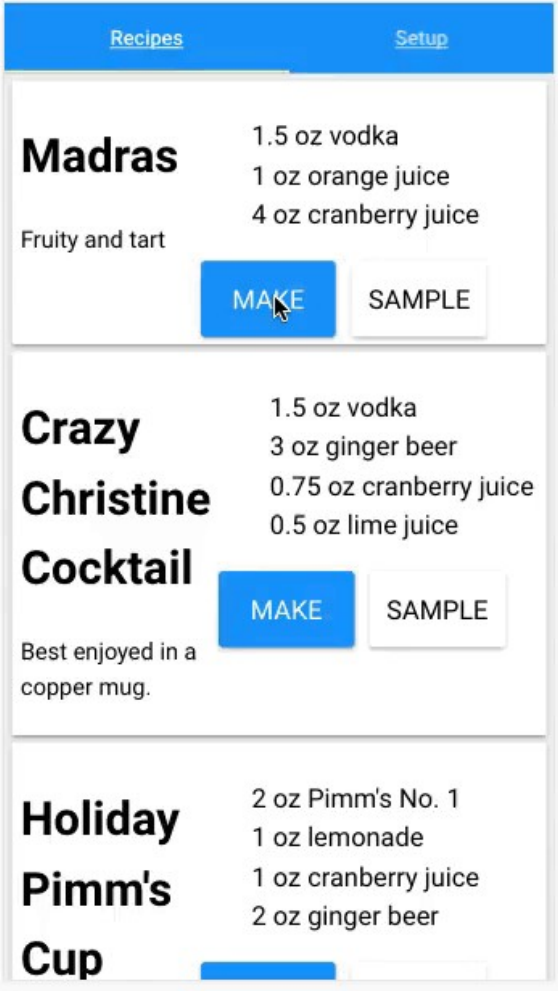
YANG parser

and RESTCONF implementation

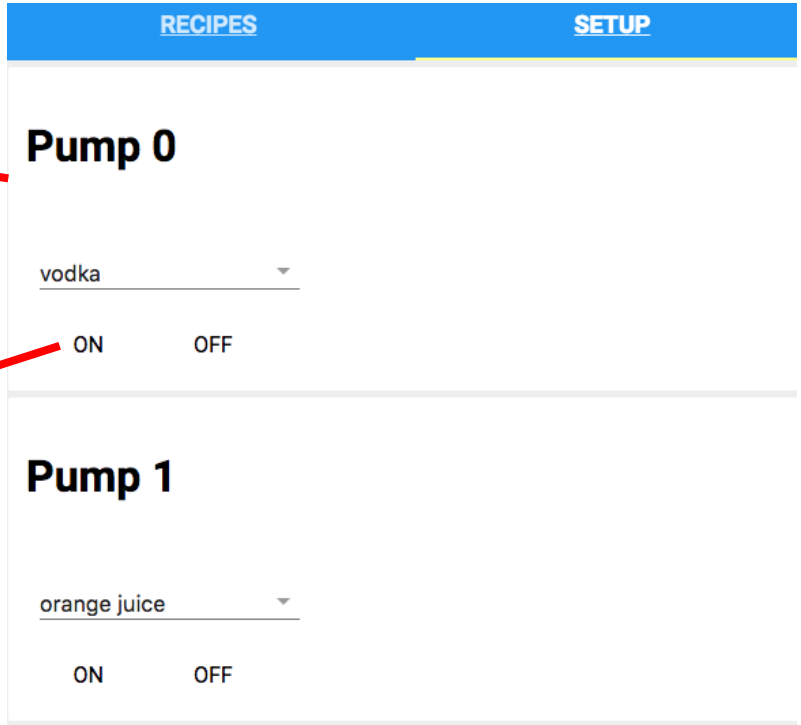
in Go called FreeCONF

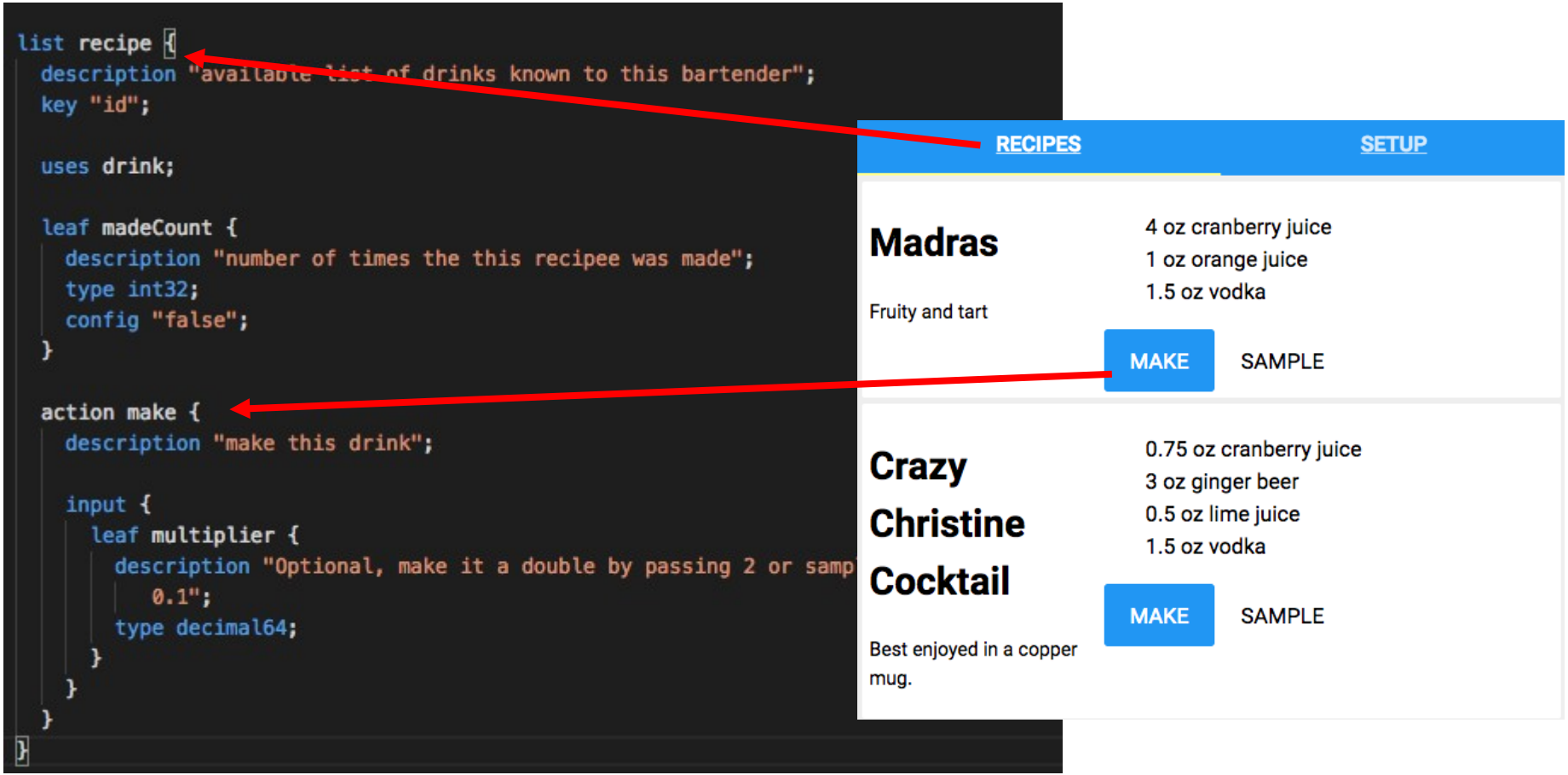
Tequila
CORAZÓN
BLANCO
100% BLUE AGAVE



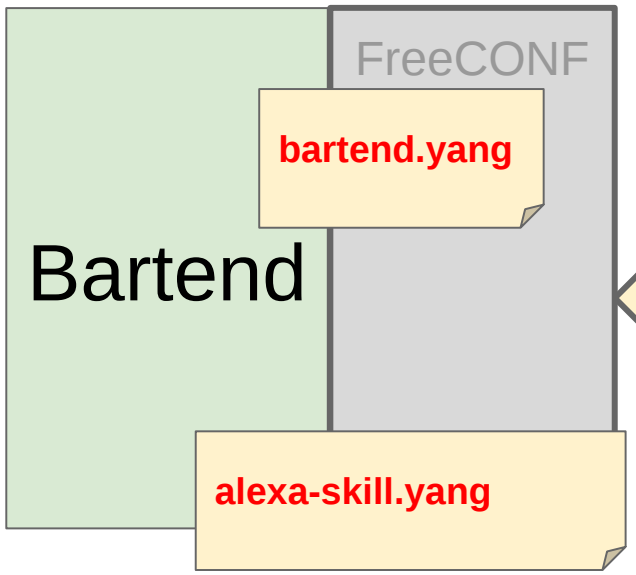

Recipes
Setup
Madras
1.5 oz vodka
1 oz orange juice
4 oz cranberry juice
Fruity and tart
MAKE
SAMPLE
Crazy Christine Cocktail
1.5 oz vodka
3 oz ginger beer
0.75 oz cranberry juice
0.5 oz lime juice
MAKE
SAMPLE
Best enjoyed in a copper mug.
Holiday Pimm's Cup
2 oz Pimm's No. 1
1 oz lemonade
1 oz cranberry juice
2 oz ginger beer

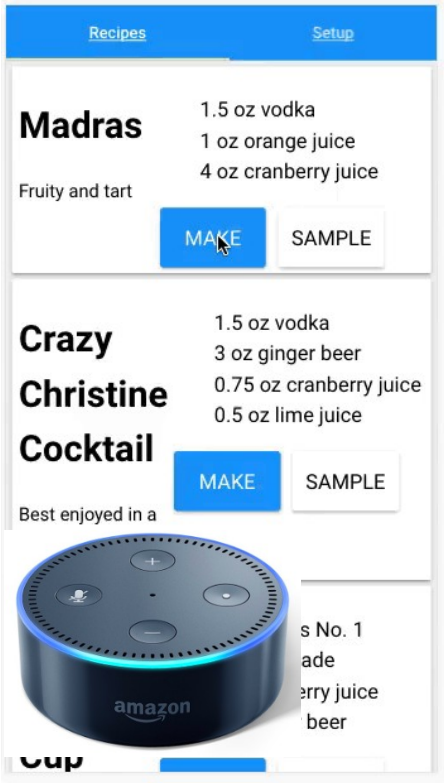
```
module bartend {
  namespace "";
  prefix "";
  revision 0;
  description "Bartender is an app that will mix a drink by turning on a set of
    liquid pumps";

  list pump {
    description "direct access to hardware pumps";
    key "id";

    leaf id {
      description "ids from 0-8 for the installed pumps";
      type int32;
    }

    leaf gpioPin {
      description "Raspberry PI GPIO pin number. Do not change unless you're rewired your Pi.";
      type int32;
    }

    leaf timeToVolumeRatioMs {
      description "number of millisecs to turn on pump to pour one milliliter";
      type int32;
    }

    leaf liquid {
      description "name of the liquid. If name does not match (case sensitive) recipe
        ingredient exactly, it will not recognized as same liquid.";
      type string;
    }

    action on {
       description "turn on the pump";
    }

    action off {
       description "turn off the pump";
    }
  }
```




list recipe {
description "available list of drinks known to this bartender";
key "id";
uses drink;
leaf madeCount {
description "number of times the this recipee was made";
type int32;
config "false";
}
action make {
description "make this drink";
input {
leaf multiplier {
description "Optional, make it a double by passing 2 or samp
0.1";
type decimal64;
}
}
}
}
RECIPES
SETUP
Madras
Fruity and tart
4 oz cranberry juice
1 oz orange juice
1.5 oz vodka
MAKE
SAMPLE
Crazy Christine Cocktail
Best enjoyed in a copper mug.
0.75 oz cranberry juice
3 oz ginger beer
0.5 oz lime juice
1.5 oz vodka
MAKE
SAMPLE

Implementation

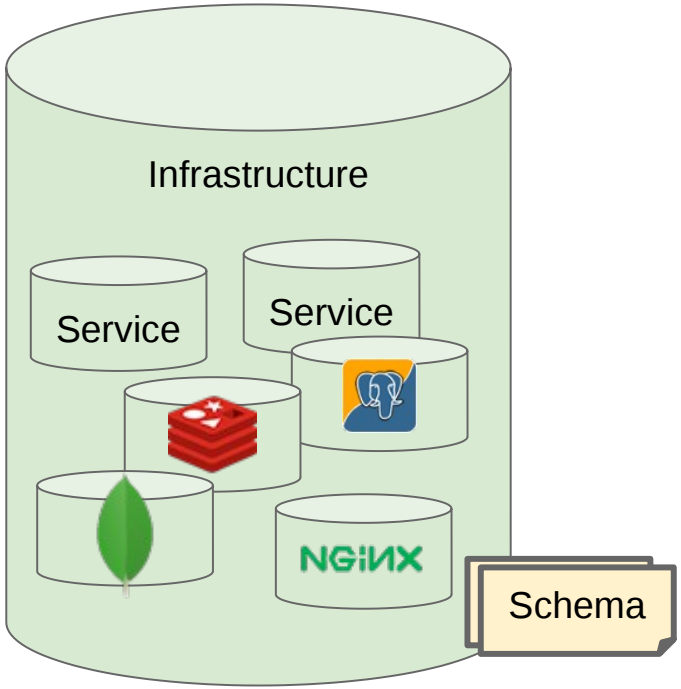




FreeCONF is used in:

1. IoT
2. Schools
3. Malware Detection

Potential Ecosystem



Prometheus
OPENSHIFT
GoodDog Labs.
influxdb
OPENCONFIG
Azure
Istio
kubernetes
HashiCorp
logz.io
amazon web services
pagerduty
DATADOG
etcd
CLOUDZERO
Google Cloud Platform

Help

- Validation
- Guidance
- Connections
- 10 million developers be more productive!

To help, please reach out to Douglas Hubler <douglas@hubler.us>