gRPC Conf 2020

# protop

## A Package Manager for gRPC and Protocol Buffers

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# Who is this guy?

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Olafsfurder, Iceland 2017

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Google Summer of Code, 2016

GNU Project

Lilypond

# Who is this for?

You

- use
- are an expert in
- are new to
- collaborate with
- are intimidated by

protocol buffers / gRPC

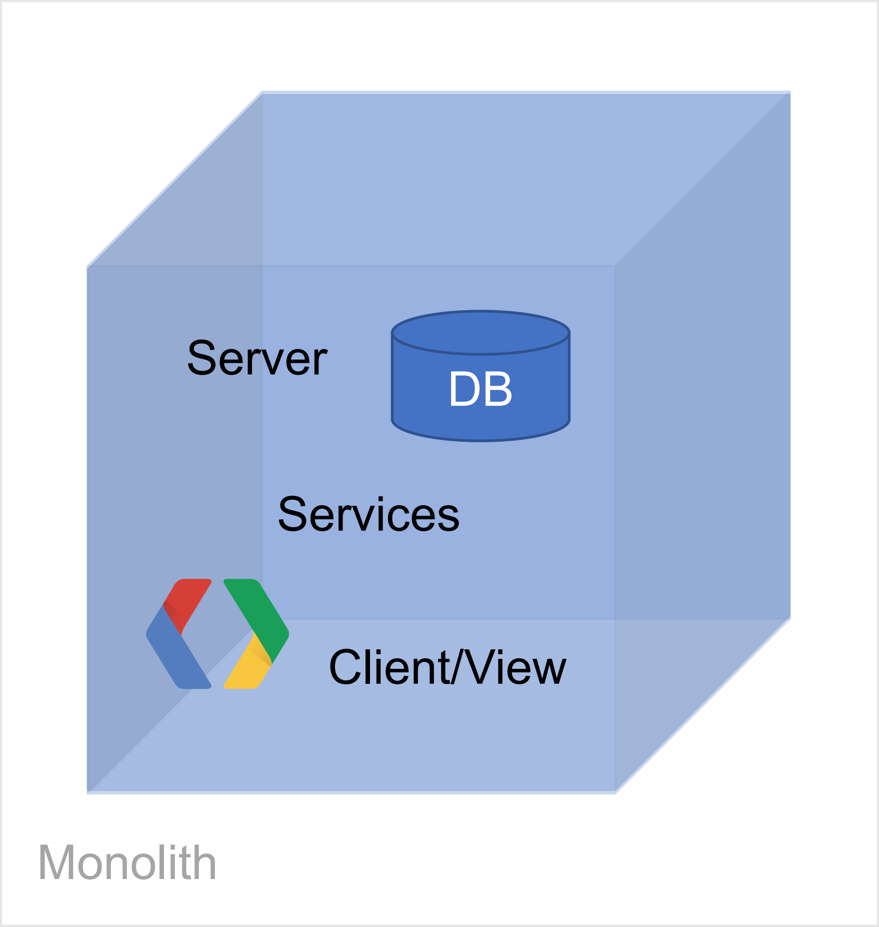
# Overview

- Development patterns with protocol buffers
- Introduction to protop
- Demo: Distributed gRPC app with protop
- Key takeaways

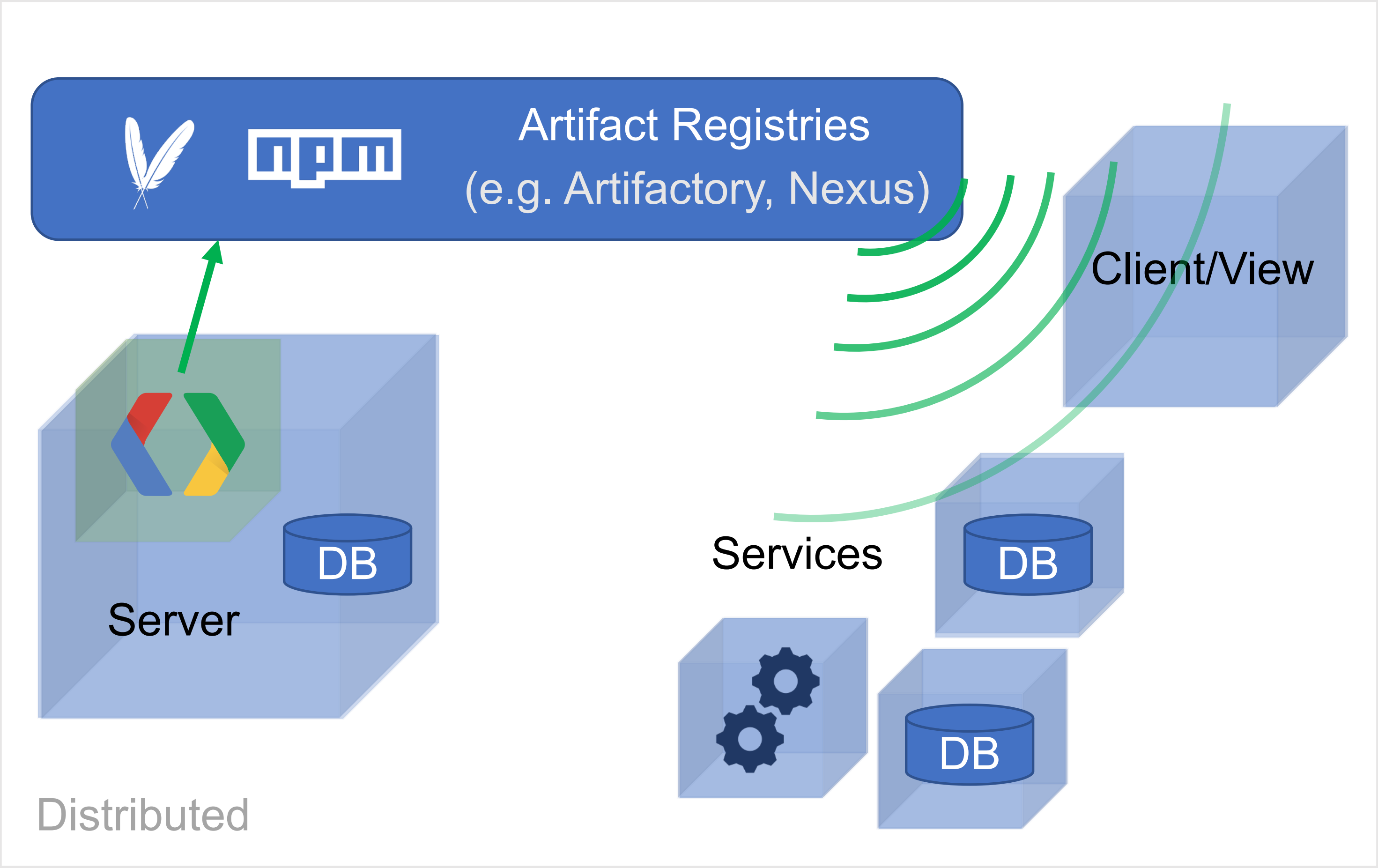
# Developing protocol buffers

How do we typically develop projects with protobufs?

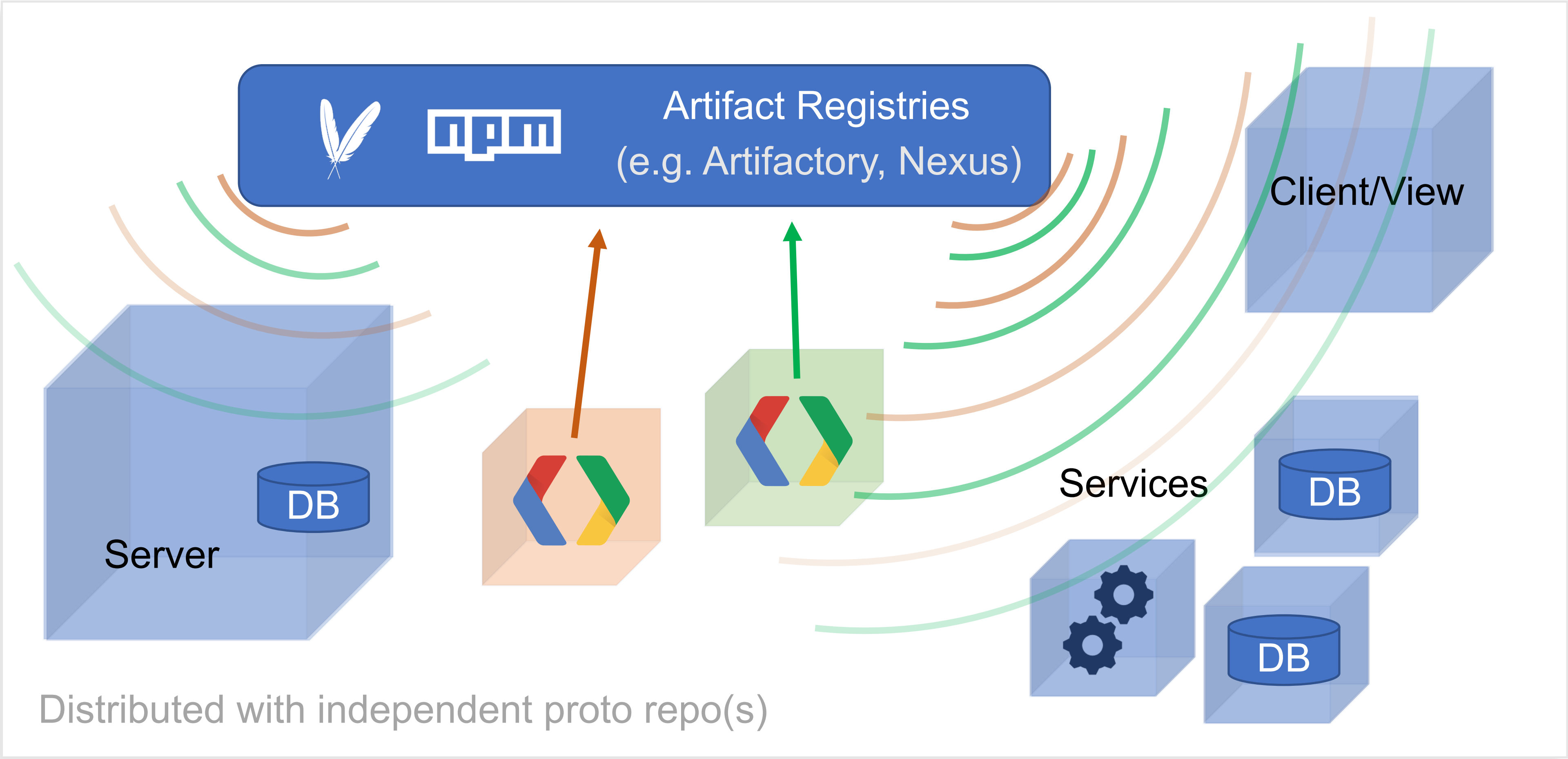
# Developing protocol buffers



# Developing protocol buffers

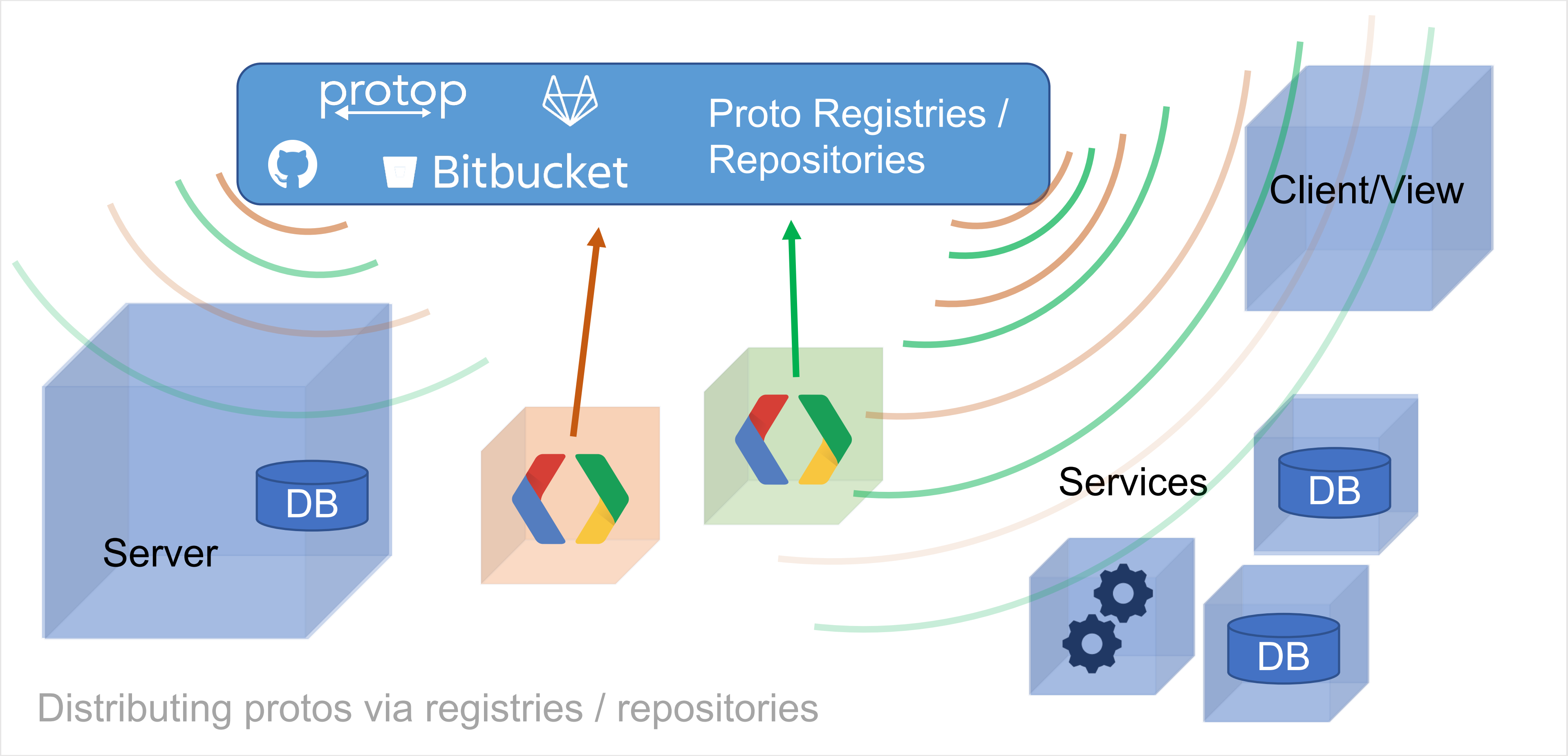


# Developing protocol buffers



Distributed with independent proto repo(s)

# The ideal workflow



Distributing protos via registries / repositories

# protop: Guiding principles

- Protos should be (able to be) small, composable
- Protos should focus on one thing: define the API
  - Separate from their implementation
- Tools should make other things easier, not harder

# protop: What is it?

- Package manager for protocol buffers
- Command-line tool
- A pattern for protobuf / gRPC development

# protop: The workflow

```
protop init
```

Creates a package manifest (`protop.json`)

```
{
  “name”: “myproject”,
  “organization”: “myorg”,
  “version”: “1.1.2”,
  “dependencies”: {
    “google/common”: “gh:googleapis/api-common-protos”
  }
}
```

# protop: The workflow

```
protop link
```

Develop protos locally

# protop: The workflow

```
protop publish
```

(or publish to a Git repository)

# protop: The workflow

```
protop sync
```

Retrieve dependencies

```
.
├── .protop
|   └── path
|       └── myorg
|           └── myproject -> /Users/jeffery/.protop/_links/protop/myproject
├── index.js
├── package.json
└── protop.json
```

# Demo

# What doesn’t it do?

- enforce patterns for developing protobufs
- fix everything / remove all complexity
- deal with code generation (or anything after)

# What does it do?

- suggests simpler patterns for developing protobufs
- makes it easier and simpler to develop / collaborate with protobufs
- focuses on one thing: being a package manager

# Thank you!

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