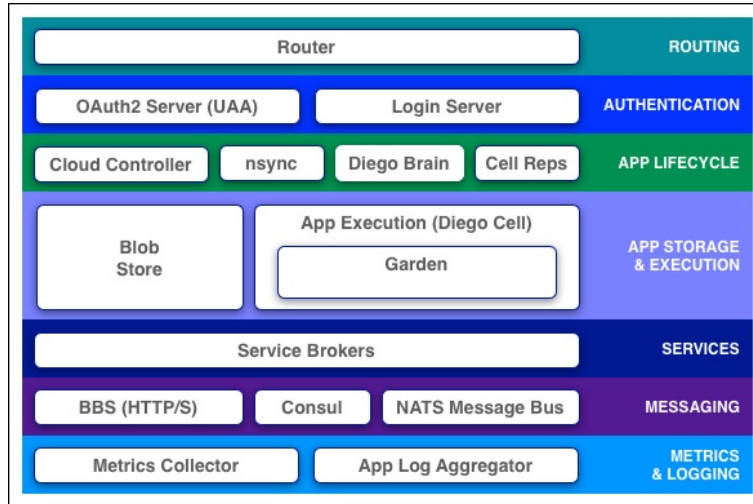


Adfinis**sy**Group

Be smart. Think open source.

# **Components of SUSE CAP**

# CF Architecture



# Router

- Routes incoming traffic to appropriate component
- Can be cc component or hosted application
- Queries BBS for routing information

## **Oauth2 Server (UAA) and Login Server**

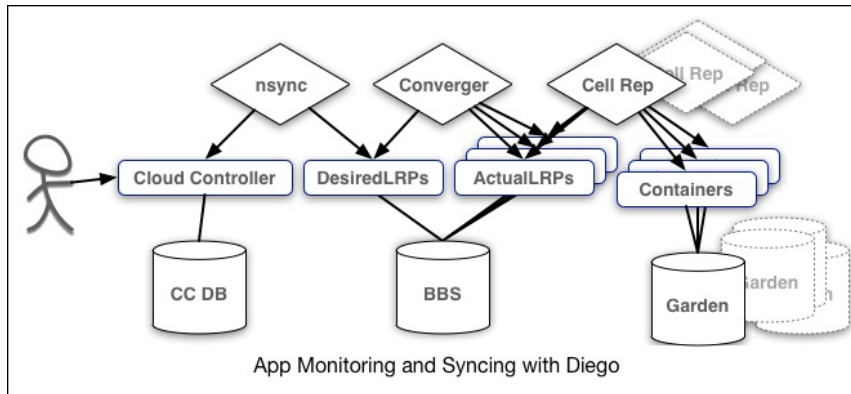
- Provide Identity Management
- User Account and Authentication Server
- Database for state
- Attachment to LDAP or other IAM solutions optional
- Checks if user are authenticated and authorized

## Cloud Controller

- Main component of Cloud Foundry
- Directs deployment of applications
- Database for state
- Communicating with Diego for building/deploying apps through CC-Bridge
- Knows about orgs, spaces, user roles, services and more

## nsync, BBS and Cell reps

- Constantly monitors state of applications
- Reconciles with expected state if needed



## **nsync**

- Receives notification from CC when app is being scaled
- Updates DesiredLRP in BBS



## **BBS**

- Monitors DesiredLRP with ActualLRP
- Starts/stops instances as required

## Cell Rep

- Monitors running containers
- Provides information regarding ActualLRP

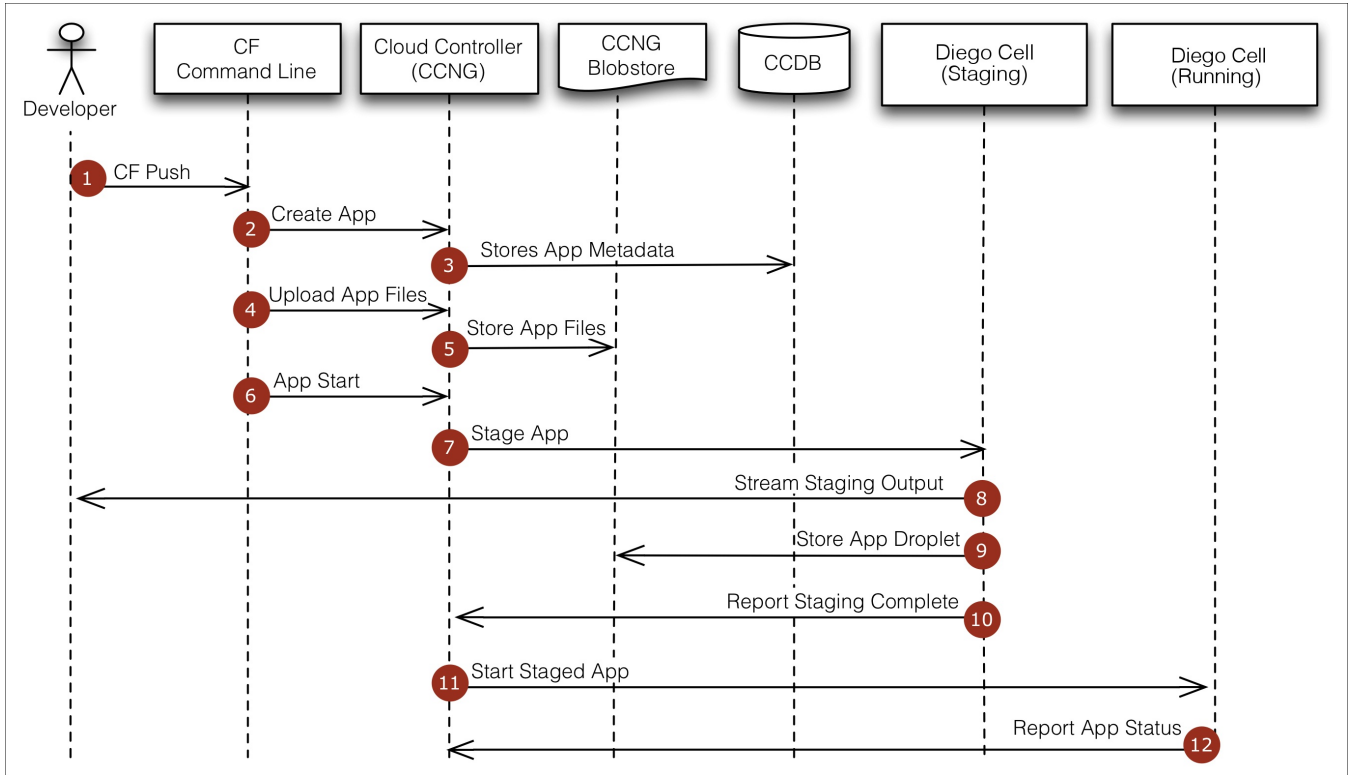
# Blobstore

- Repository for large binary files
- Application code packages
- Buildpacks
- Droplets

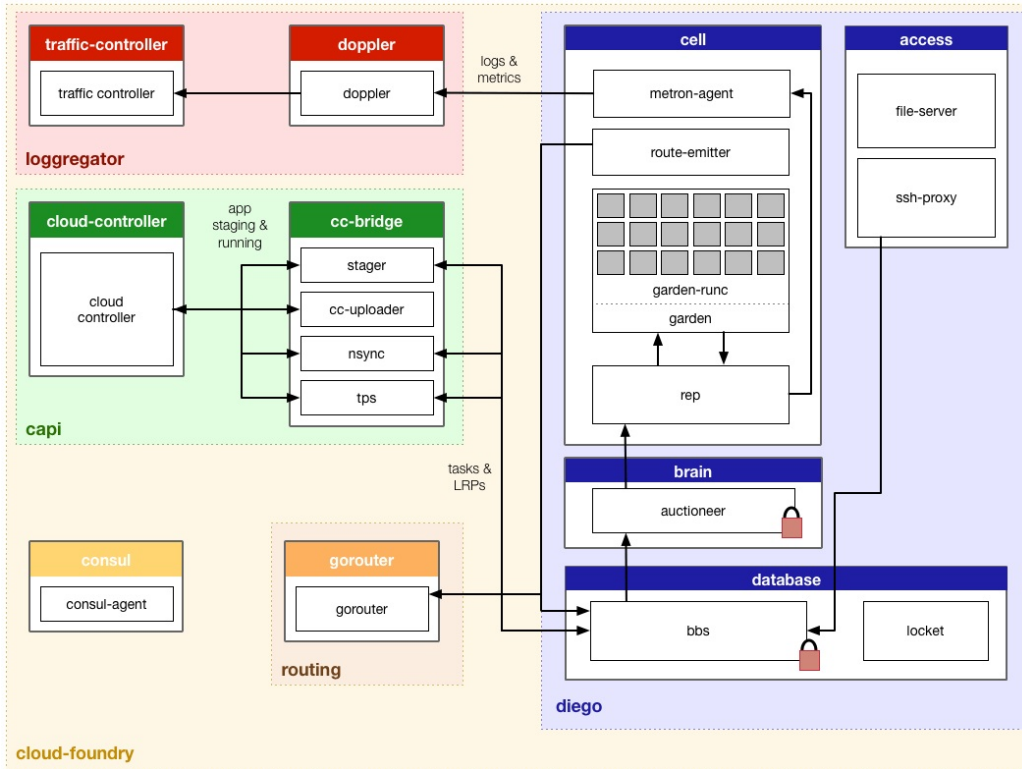
## Diego Cell

- Runs application instances, application tasks and staging tasks as Garden containers on Diego Cells
- Diego cell rep manages lifecycle, reports state to BBS and emits logs and metrics to Loggregator

# Diego flow



# Diego flow



## Messaging / BBS

- Components communicate through HTTP and HTTPS protocols
- Storing of temporary messages in Bulletin Board System (BBS)

## Route Emiter

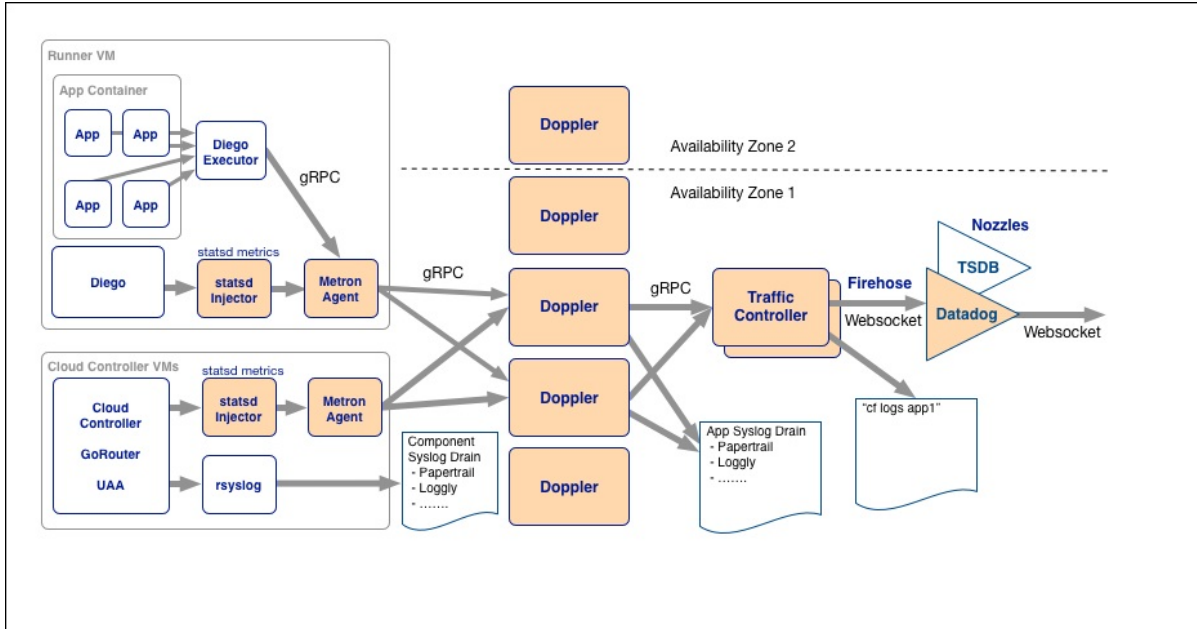
- Communication between diego cell and GoRouter
- Uses NATS Protocol to broadcast latest routing table to GoRouter



# Loggregator

- Streams application logs to developers
- Metron Agent in Diego Cell
- Doppler / Traffic Controller

# Loggregator



## Metrics Collector

- Gathers metrics and stats from components
- Informations can be used to monitor Deployments

# Diego Architecture

## Diego Cell Components

- Rep
- Garden
- Metron Agent
- Route-Emitter

# Diego Brain

- Auctioneer

# Databases

- BBS
- MySQL

# Access

- File Server serves static assets used in the app lifecycle
- SSH Proxy for connections with `cf ssh`



## CC Bridge Components

- Stager
- CC-Uploader
- Nsync Bulker
- Nsync Listener
- TPS Listener
- TPS Watcher

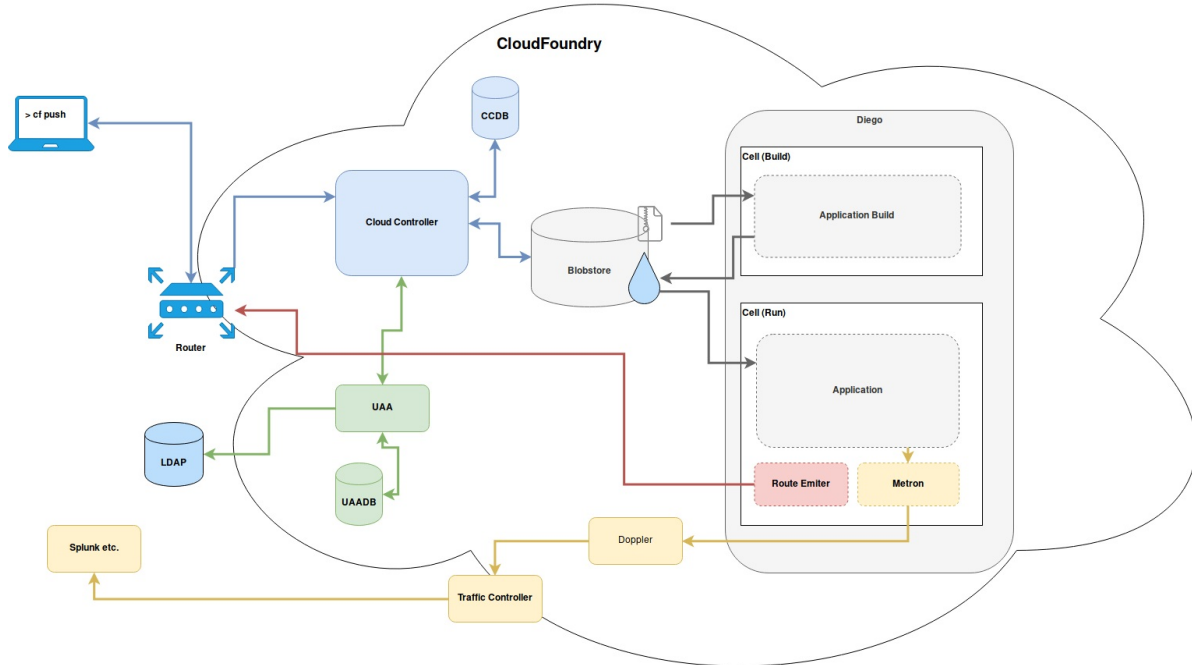
# Locket

- Provides abstractions for locks and service registration
- Relies on a SQL backend for persistence
- Lives in the Database VM

# App Lifecycle Binaries

- Builder
- Launcher
- Healthcheck

# Simple whole picture



# Feel Free to Contact Us

[www.adfinis-sygroup.ch](http://www.adfinis-sygroup.ch)

[Tech Blog](#)

[GitHub](#)

[info@adfinis-sygroup.ch](mailto:info@adfinis-sygroup.ch)

[Twitter](#)

