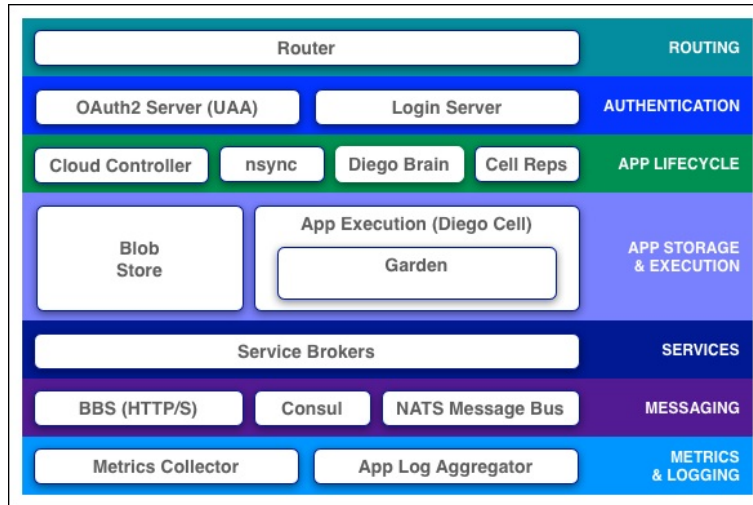


Adfinis**sy**Group

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

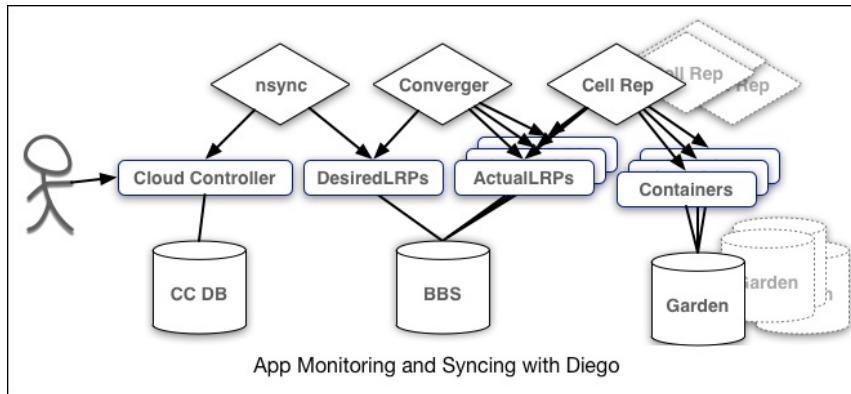
- Provide Identity Management
- User Account and Authentication Server
- Database for state
- Attachment to LDAP or other IAM solutions optional
- Checks if user are authenticated and authorized

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

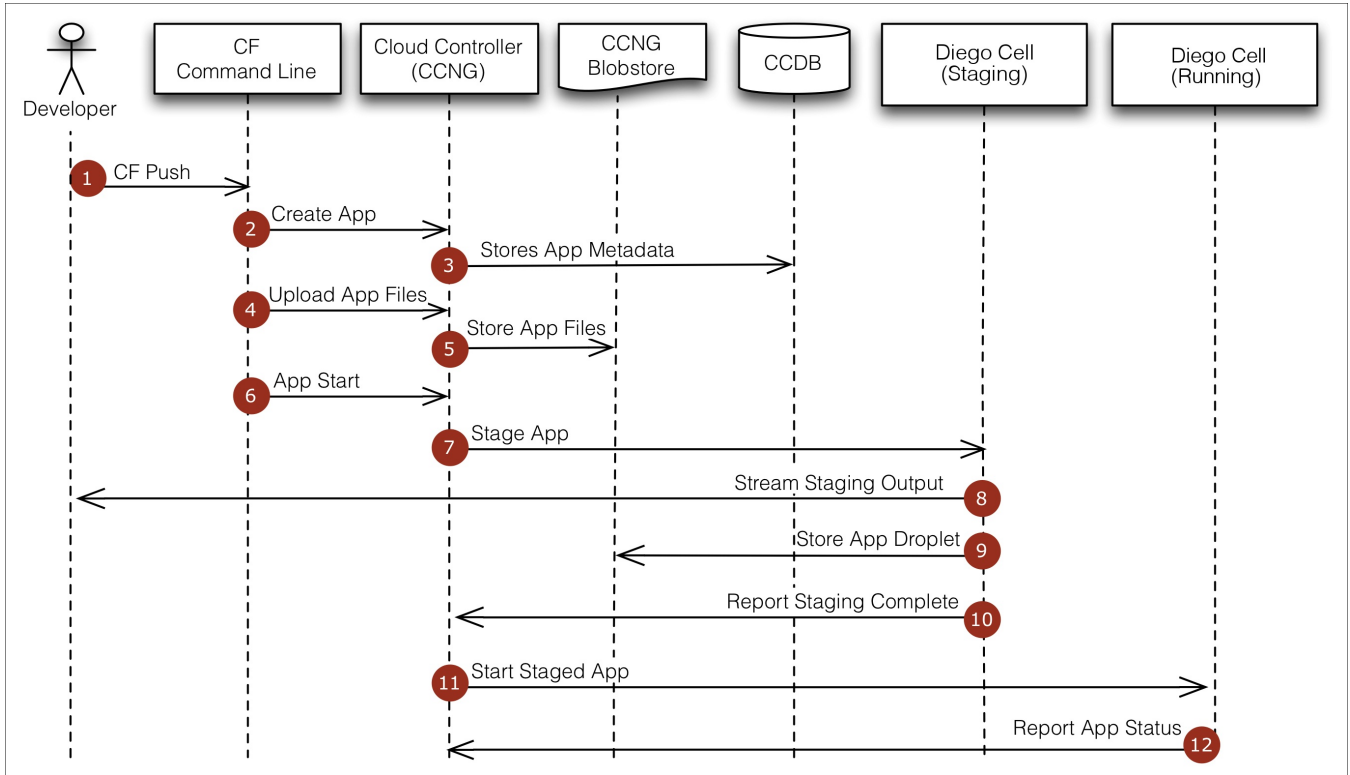
Blobstore

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

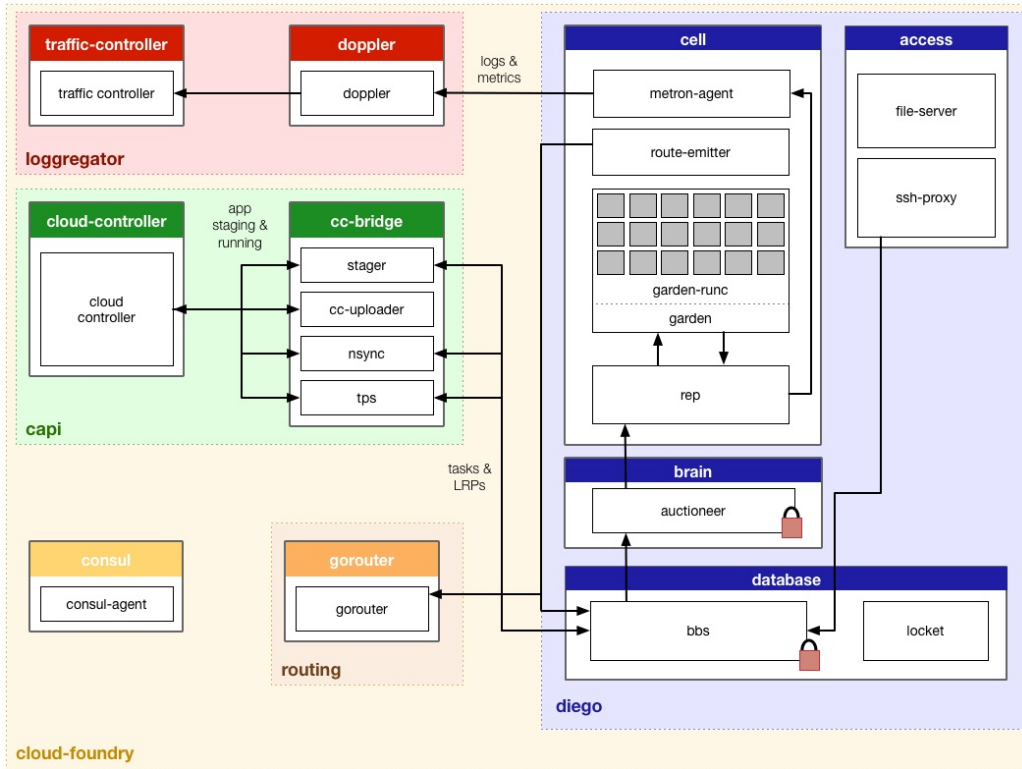
Diego Cell

- 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)

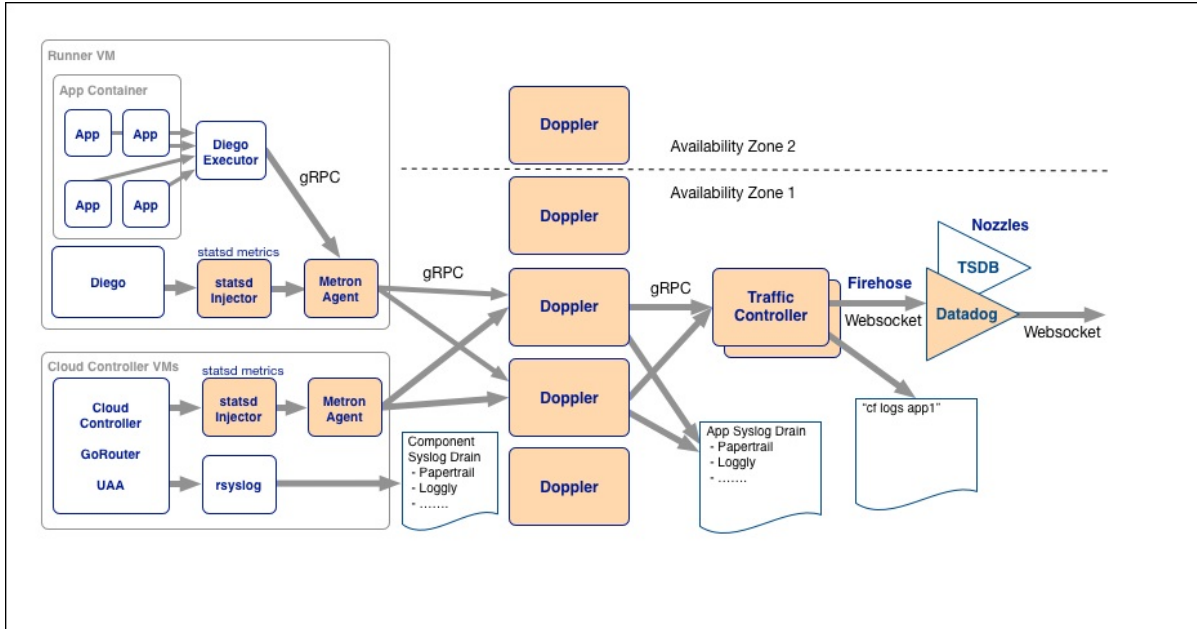
Route Emiter

- 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 `cfssh`

CC Bridge Components

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

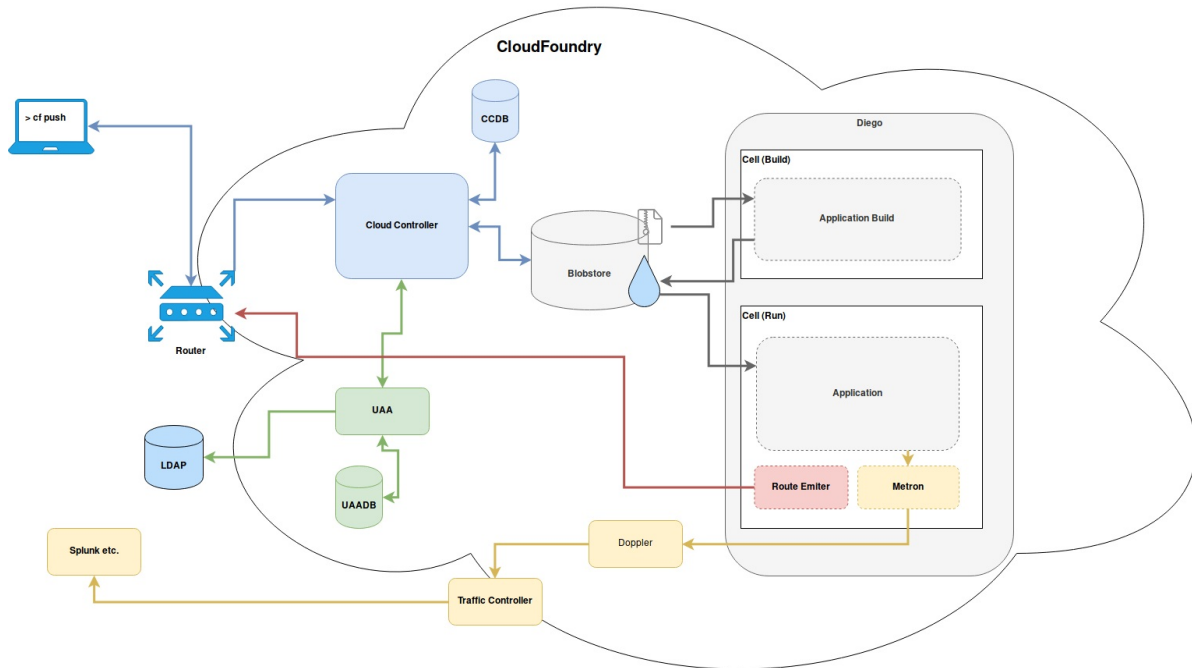
Locket

- 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



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