

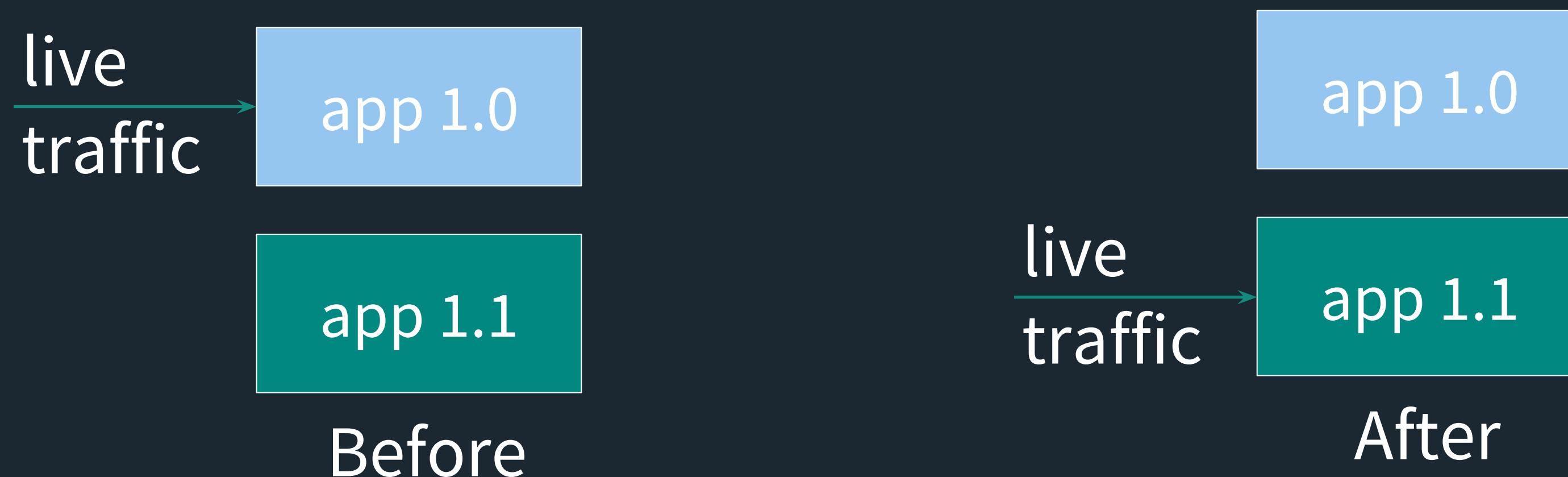
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Blue-Green Deployments with Pivotal Cloud Foundry



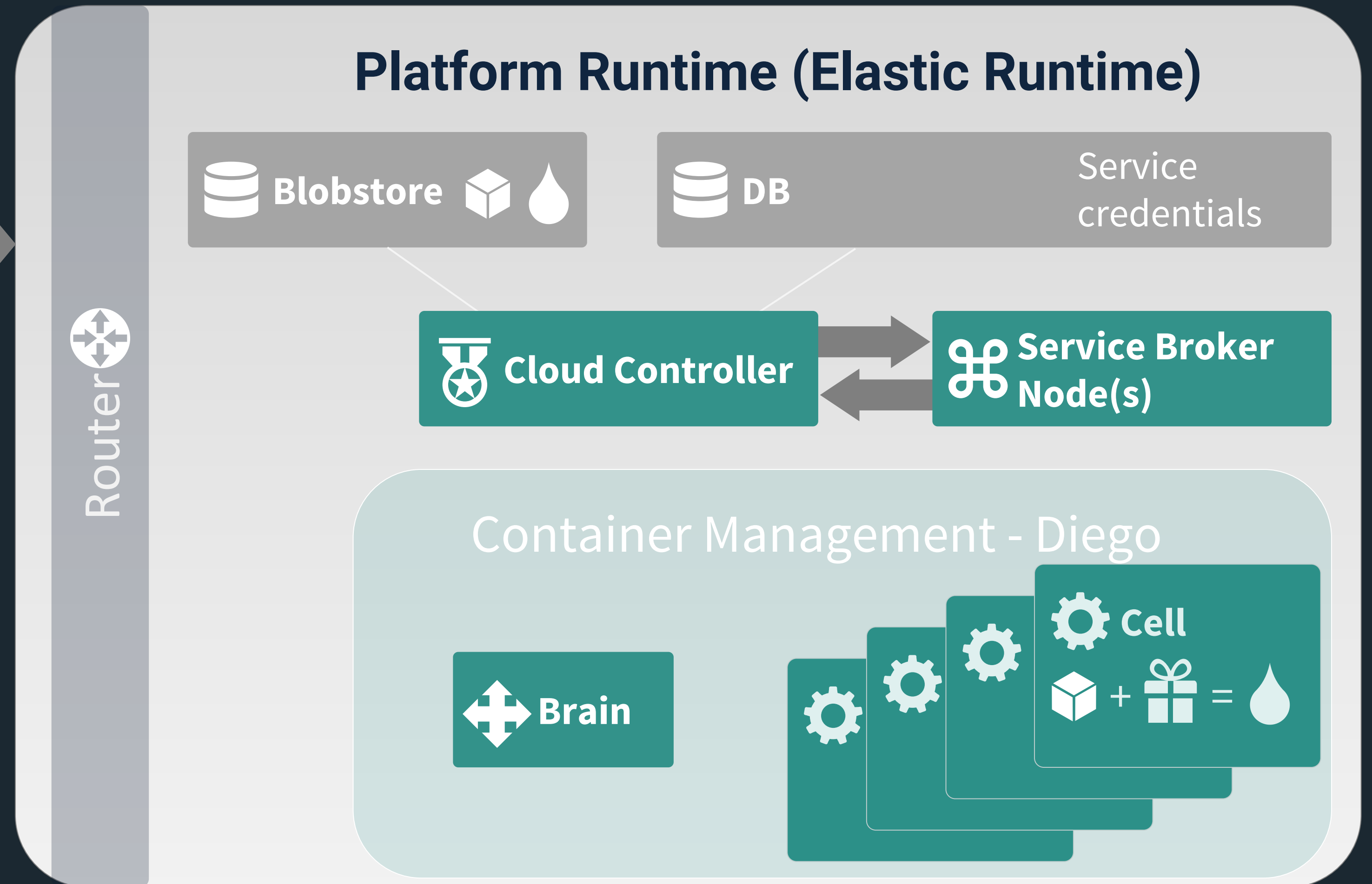
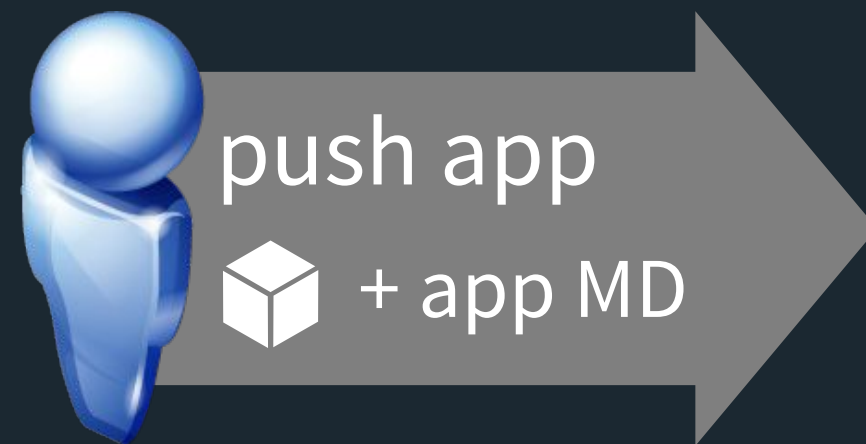
Blue-Green Deployments

- Blue-Green deployment is an approach to upgrading application with minimal downtime.
- It also enables easy rollback to the old version if the new version experiences problems
- It works by keeping both versions online, and switching from the old version to the new version



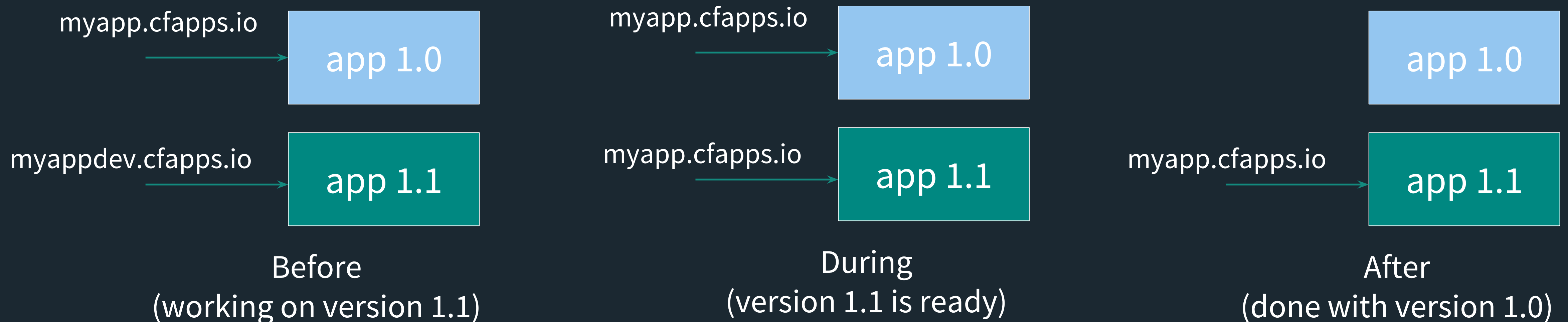
REVIEW: Deploying an Application

1. Upload app bits and metadata
(Create and bind route)
2. Create and bind services
3. Stage application
4. Deploy application
5. Manage application health



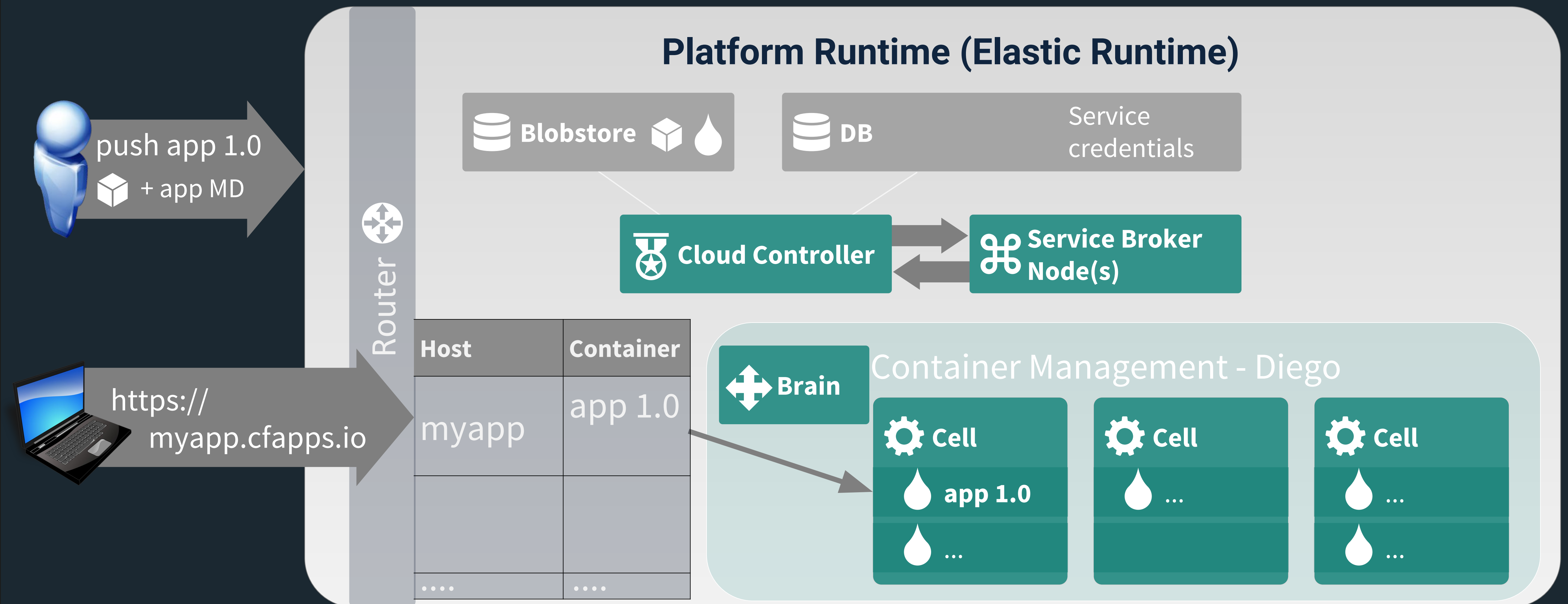
Blue-Green Deployments using Routes

- Main idea: you always want ***myapp.cfapps.io*** to be good
- Use routes to achieve this
- Because you are in a single space, multiple application can use the same routes



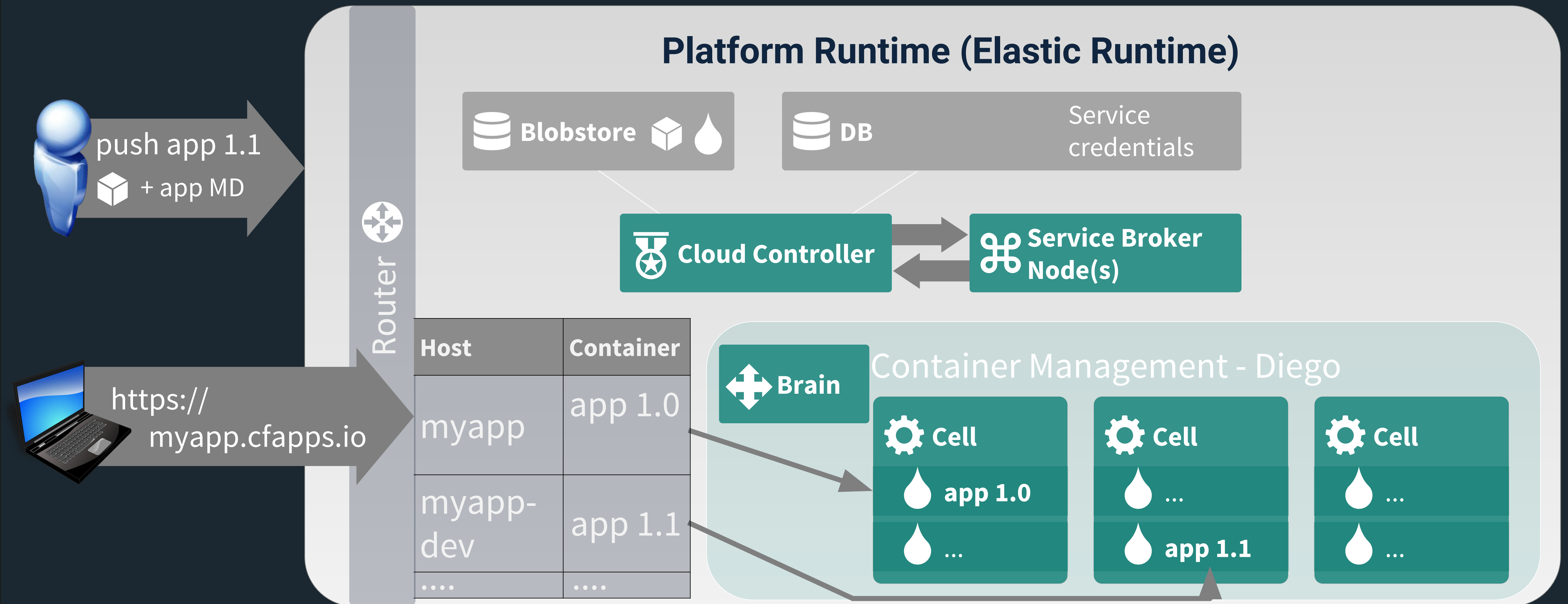
Blue Green Deployment Using Routes

Push v 1.0 of App



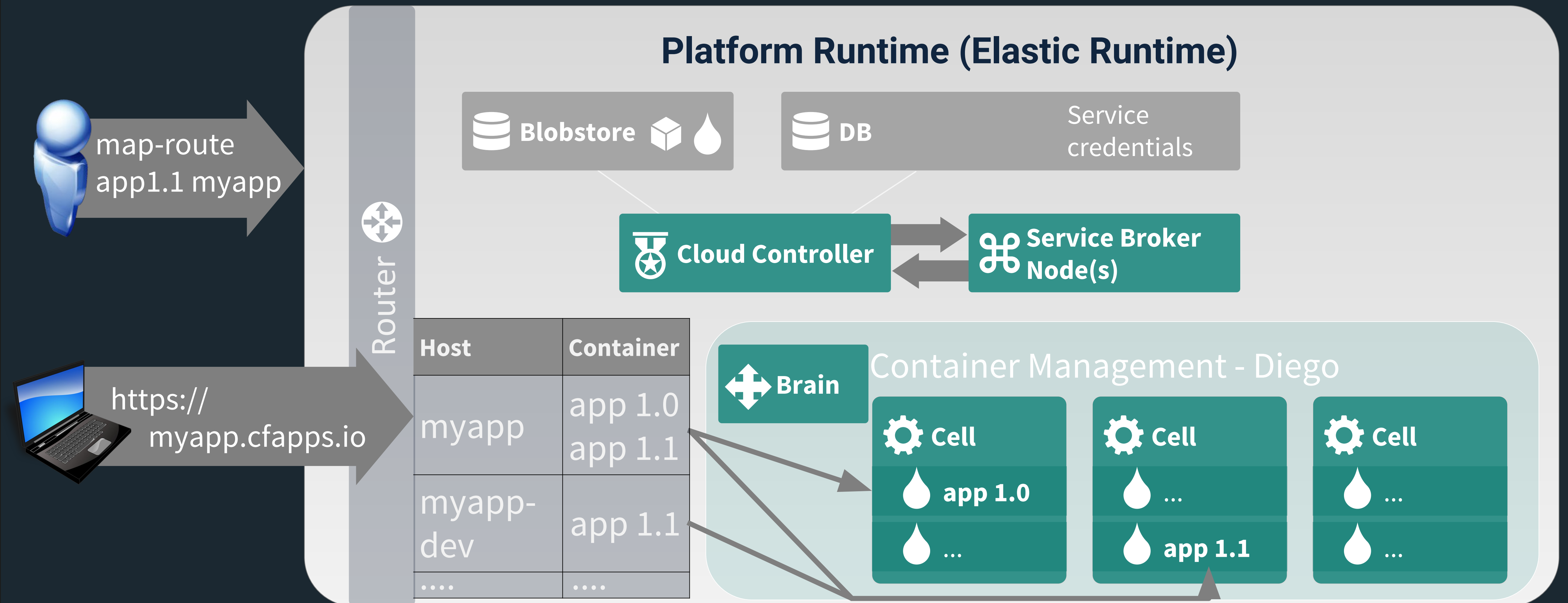
Blue Green Deployment Using Routes

Push v 1.1 of App



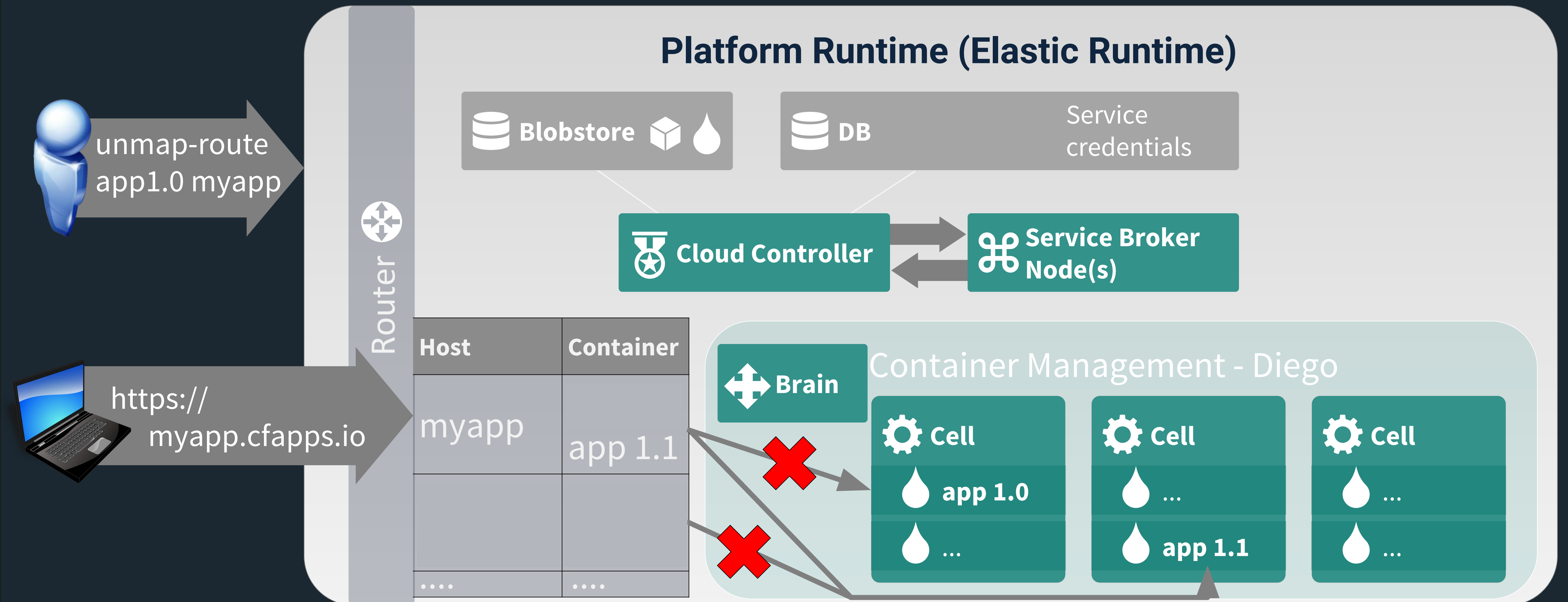
Blue Green Deployment Using Routes

Map Route for v 1.1 of App to “myapp”



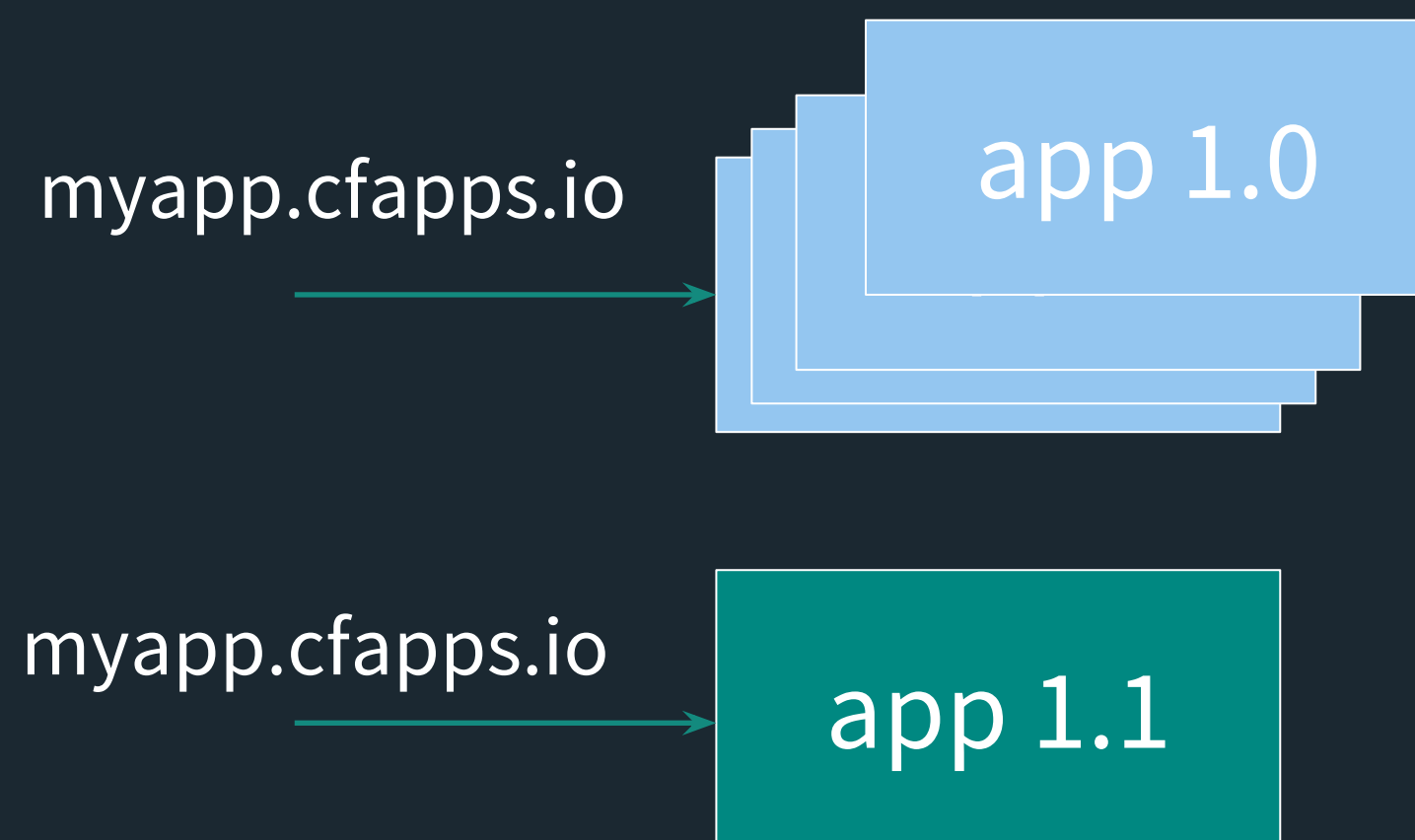
Blue Green Deployment Using Routes

Unmap Old Routes for v 1.0 and v 1.1



Slowly Turning on Traffic using Instances

- Start with four instance of blue, one instance of green
 - 80% of traffic will use version 1.0
- Decrease blue instance, increase green instances as confidence builds



DB Migrations for Cloud Foundry Services

- Migrate Once
 - Service instance credentials can be obtained using ***cf env***
- Migrate Occasionally
 - Create a schema migration cmd or script
 - Run it when deploying a single instance of the app
 - Redeploy the app with the original cmd
- Migrate Often
 - Uses idempotent script to partially automate migrations. The script runs on the first application instance only



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A NEW PLATFORM FOR A NEW ERA