# camp tocamp

INNOVATIVE SOLUTIONS
BY OPEN SOURCE EXPERTS

**GeoServer Cloud
Scale up and industrialize data services**

**geoCom 2022**

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# What is GeoServer Cloud?

→ Still GeoServer

→ But a true distributed System

→ Opinionated

→ Containerized

→ Scalable

→ Ready for the Cloud

# What is GeoServer Cloud?

→ **Still GeoServer**

- ■ Sibling project
- ■ Feeds from and contributes to the main codebase
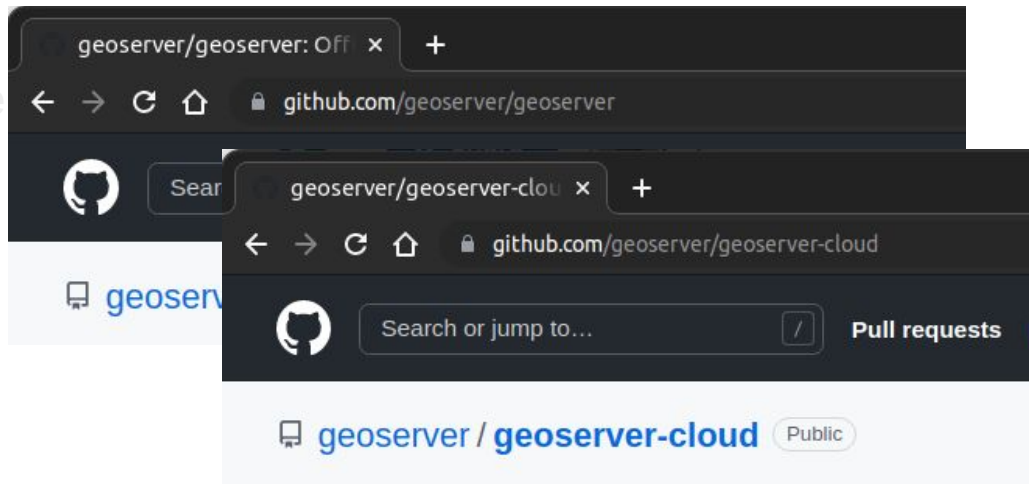- ■ Donated to OSGeo

→ But a true distributed System
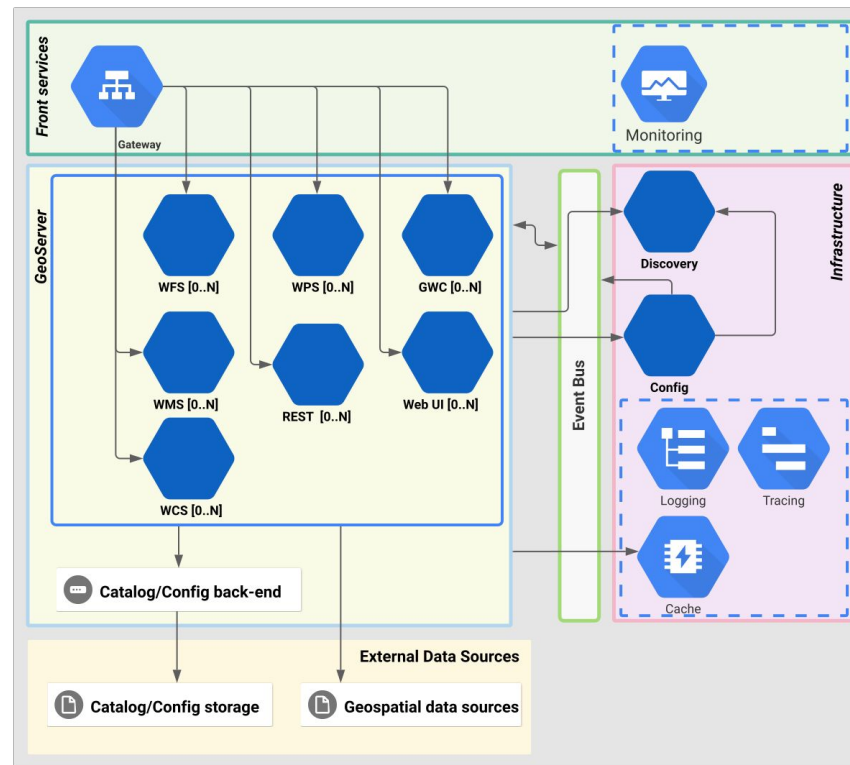
→ Opinionated

→ Containerized

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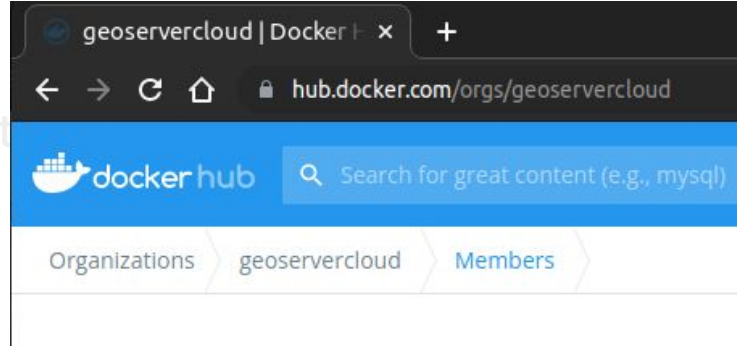
# What is GeoServer Cloud?

→ Still GeoServer

→ **But a true distributed System**

- Business capabilities decomposed into independent applications
- Working cohesively as a whole
- No downtime due to reloads

→ Opinionated

→ Containerized

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# What is GeoServer Cloud?

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→ **Containerized**

- Docker/Compose

- Podman

- Kubernetes

- Security scanned

→ Scalable

→ Opinionated

→ Ready for the Cloud





geoservercloud / **geoserver-cloud-gwc**
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geoservercloud / **geoserver-cloud-webui**
Last pushed: 2 days ago

geoservercloud / **geoserver-cloud-wms**
Last pushed: 2 days ago

geoservercloud / **geoserver-cloud-catalog**
Last pushed: 2 days ago

geoservercloud / **geoserver-cloud-rest**
Last pushed: 2 days ago

geoservercloud / **geoserver-cloud-wps**
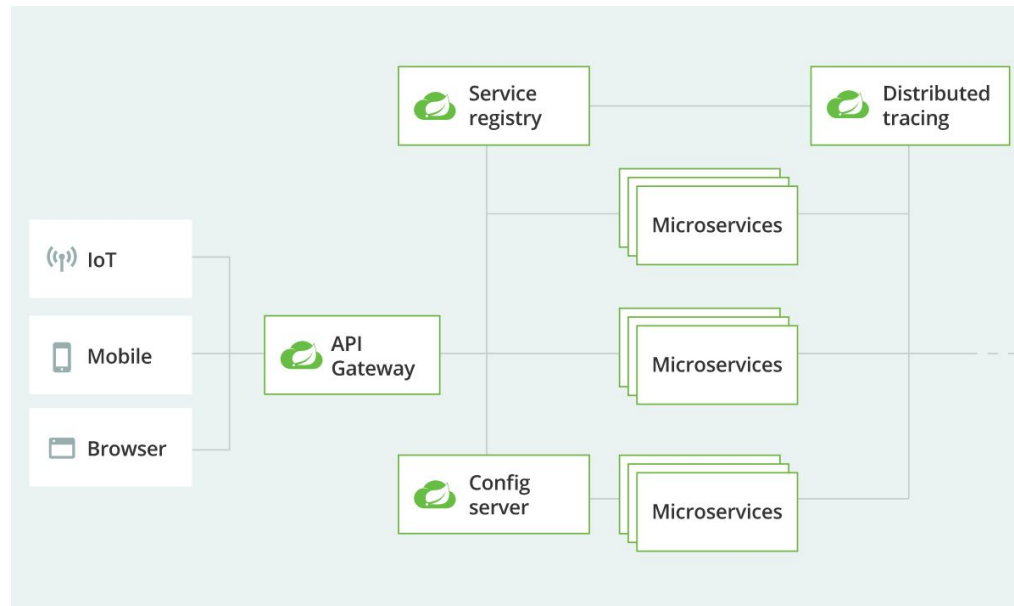Last pushed: 2 days ago

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  ■ Vertically. Dimension server resources based on each app's performance characteristics.

  ■ Horizontally. Automatic load balancing. Automate scaling out to satisfy demand, and scaling down to preserve resources and reduce cloud costs.
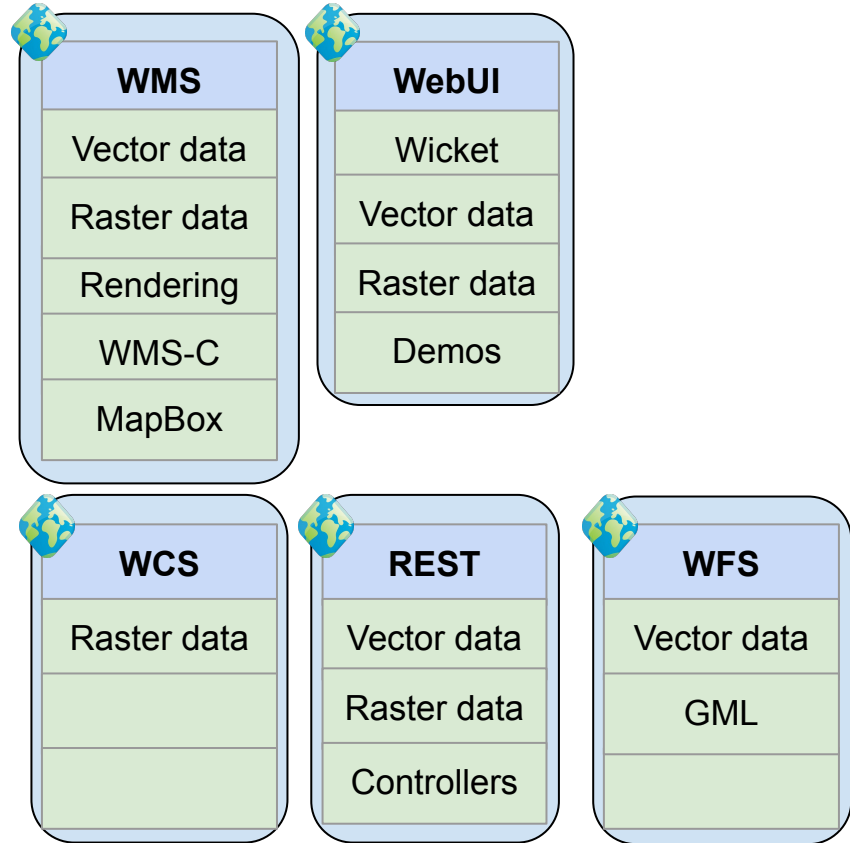
→ Opinionated

→ Ready for the Cloud

# What is GeoServer Cloud?

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**→ Opinionated**

   ■ Spring-Cloud stack

   ■ Extension selectiveness

→ Ready for the Cloud

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→ **Opinionated**

    ■ Spring-Cloud stack

    ■ **Extension selectiveness**

→ Ready for the Cloud

| WMS |
|---|
| Vector data |
| Raster data |
| Rendering |
| WMS-C |
| MapBox |

| WebUI |
|---|
| Wicket |
| Vector data |
| Raster data |
| Demos |

| WCS |
|---|
| Raster data |
| |
| |

| REST |
|---|
| Vector data |
| Raster data |
| Controllers |

| WFS |
|---|
| Vector data |
| GML |
| |

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   ■ Spring-Cloud stack

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→ Ready for the Cloud

```yaml
web-ui:
  security.enabled: true
  wfs.enabled: true
  wms.enabled: true
  wcs.enabled: true
  wps.enabled: true
  extensions:
    importer.enabled: true
  demos:
    enabled: true
    wps-request-builder: true
    wcs-request-builder: true
    demo-requests: true
    srs-list: true
    reprojection-console: true
    layer-preview-page:
      enabled: true
      common-formats:
        open-layers: true
        gml: true
        kml: false #kml links are broken
  tools:
    enabled: true
    resource-browser: true
    catalog-bulk-load: true
```

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→ **Ready for the Cloud**

- DevOps oriented (terraform, helm, docker-compose, kubernetes)
- Observability (health, readiness/liveness, metrics, distributed logging and tracing)
- AWS, GCP, OpenShift, Azure, etc

# What's next?

→ GeoWebCache Distributed Tile Seeding (in progress)
- Coordinate tile cache seeding across GWC instances
- Takes advantage of scaling-out to speed up seeding large tile caches

→ GeoFence microservice (planned, waiting for funding)
- Migrate GeoFence as a Spring-Cloud application.

→ More Users & New contributors
- Join us!

# How do I get a handle on it?

→ Available

- Current version in production : v1.0-RC18
    - Documentation : http://geoserver.org/geoserver-cloud/
    - Source code : https://github.com/geoserver/geoserver-cloud/
    - Docker:  https://hub.docker.com/orgs/geoservercloud
    - Helm chart:
      https://github.com/camptocamp/helm-geoserver-cloud