

The VMware logo is located in the top right corner of the image. It consists of the word "vmware" in a lowercase, sans-serif font, with a registered trademark symbol (®) to its upper right. The background of the entire image is a light gray grid with two large, stylized blue shapes that resemble overlapping planes or steps, one in the top left and one in the bottom right.

# Cloud-Native Day 2020 Korea

*LIVE!*

5월29일(금) | 13:30pm



**Cloud-Native Day**  
**2020 Korea**  
*LIVE!*

# Build | 더 빠른 앱 개발을 위한 플랫폼 자동화

Vmware Korea

신혜원 이사 ( [haewons@vmware.com](mailto:haewons@vmware.com) )

Tanzu Specialist

**vmware**<sup>®</sup>

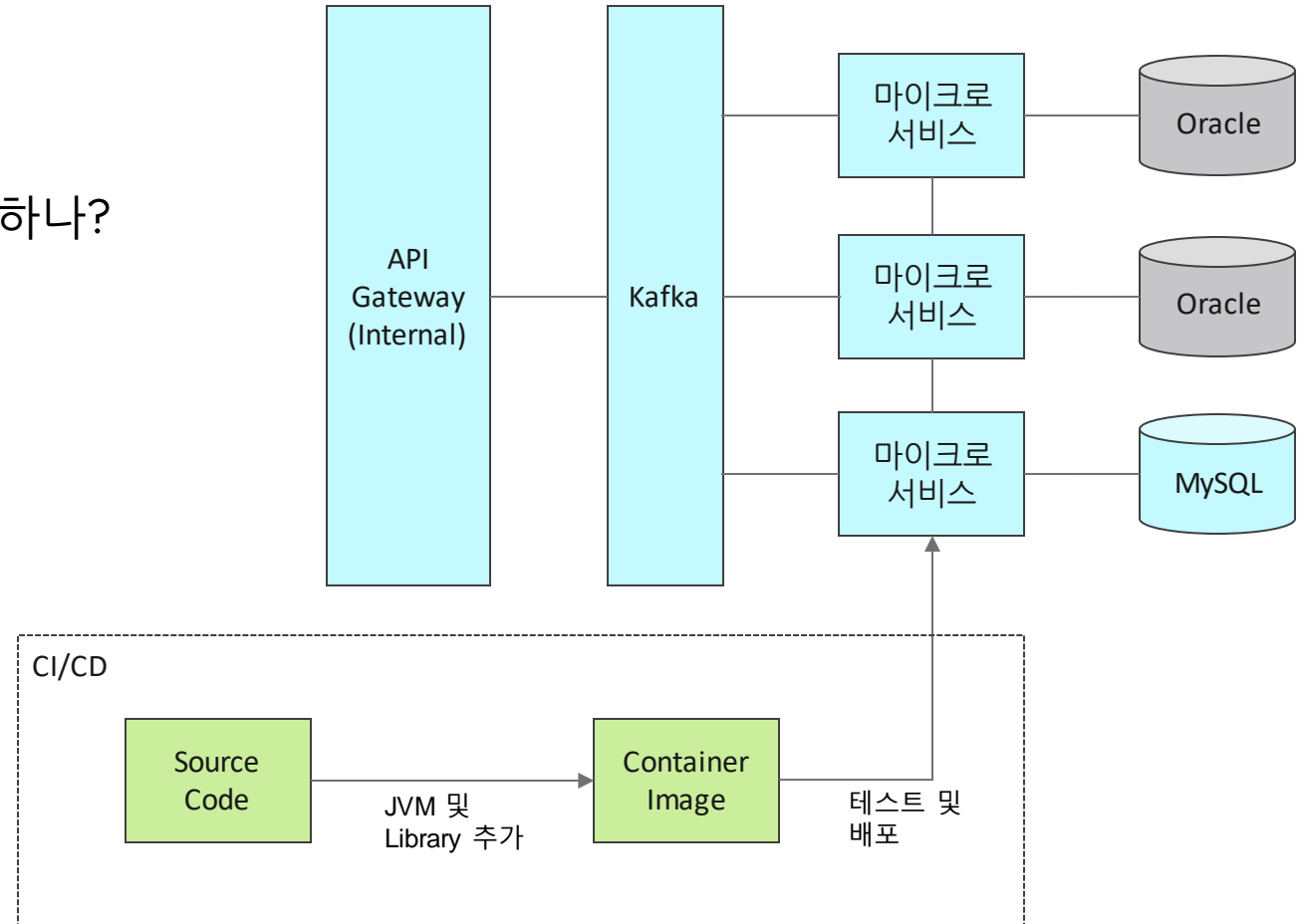


# ACME 은행에서 쿠버네티스 기반의 Cloud Native App 전환을 시작한다면?

# Today's Sessions

1. 마이크로서비스 디자인 및 조직 구성
2. 마이크로서비스 구축
3. 마이크로서비스 런타임
4. 마이크로서비스 모니터링 및 관리

- 어플리케이션 프레임워크는 무엇으로 하나?
- 마이크로서비스를 위한 프레임워크는?
- 어플리케이션 컨테이너 이미지는 어떻게 관리 하나?
- 분산 트랜잭션 트레이싱은 어떻게 구축하나?
- 오픈소스 설치와 관리는 어떻게 하나?



# 어떤 프레임워크를 선택할까?

Tanzu Spring Runtime



vmware®

# Spring Runtime

Software & Support for OpenJDK, Spring, and Tomcat

**VMware's Java Experts**

**Support 24/7**

**Simple Pricing**

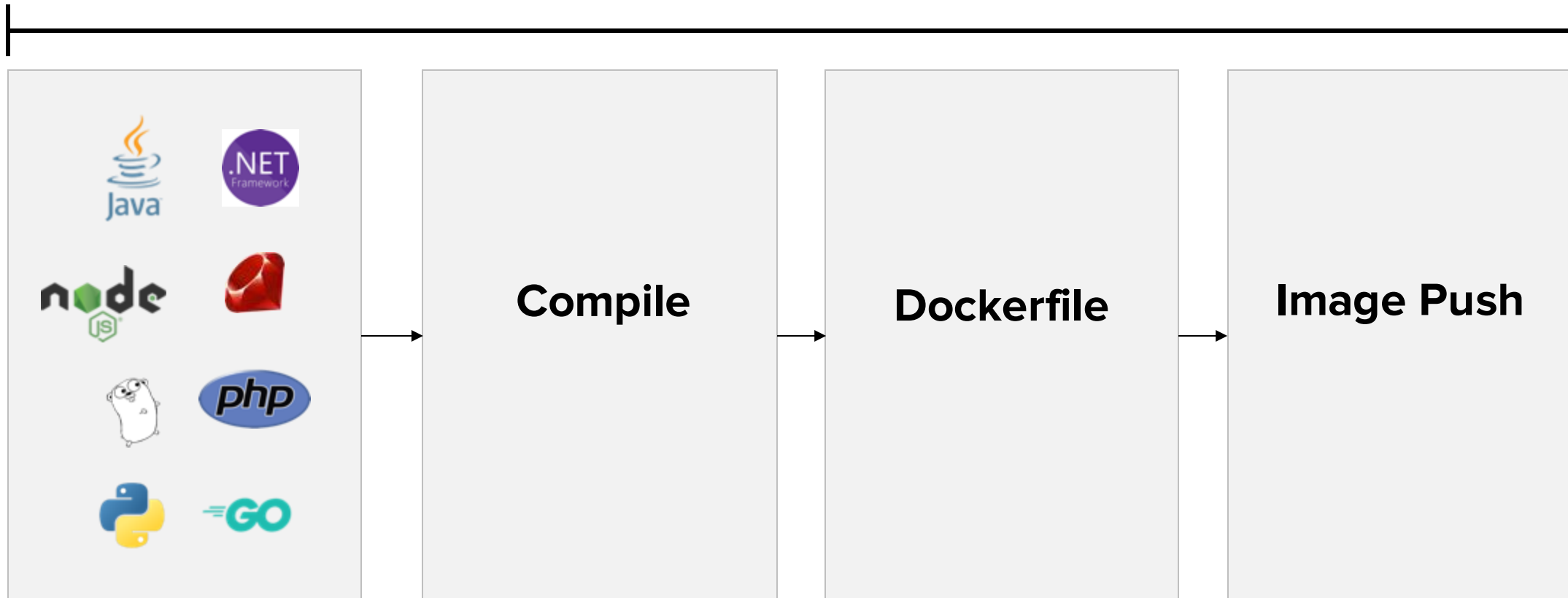
# 이미지를 어떻게 만들까?

Tanzu Build Service



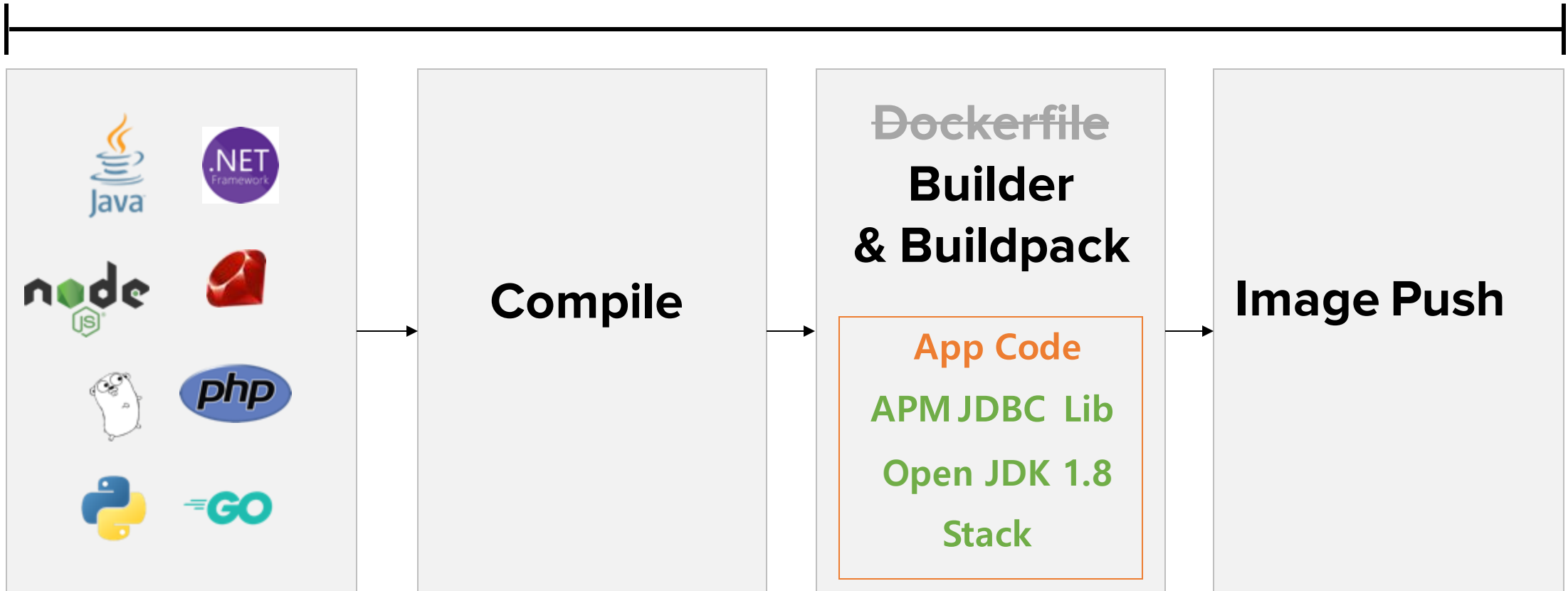
Source

Container  
Image

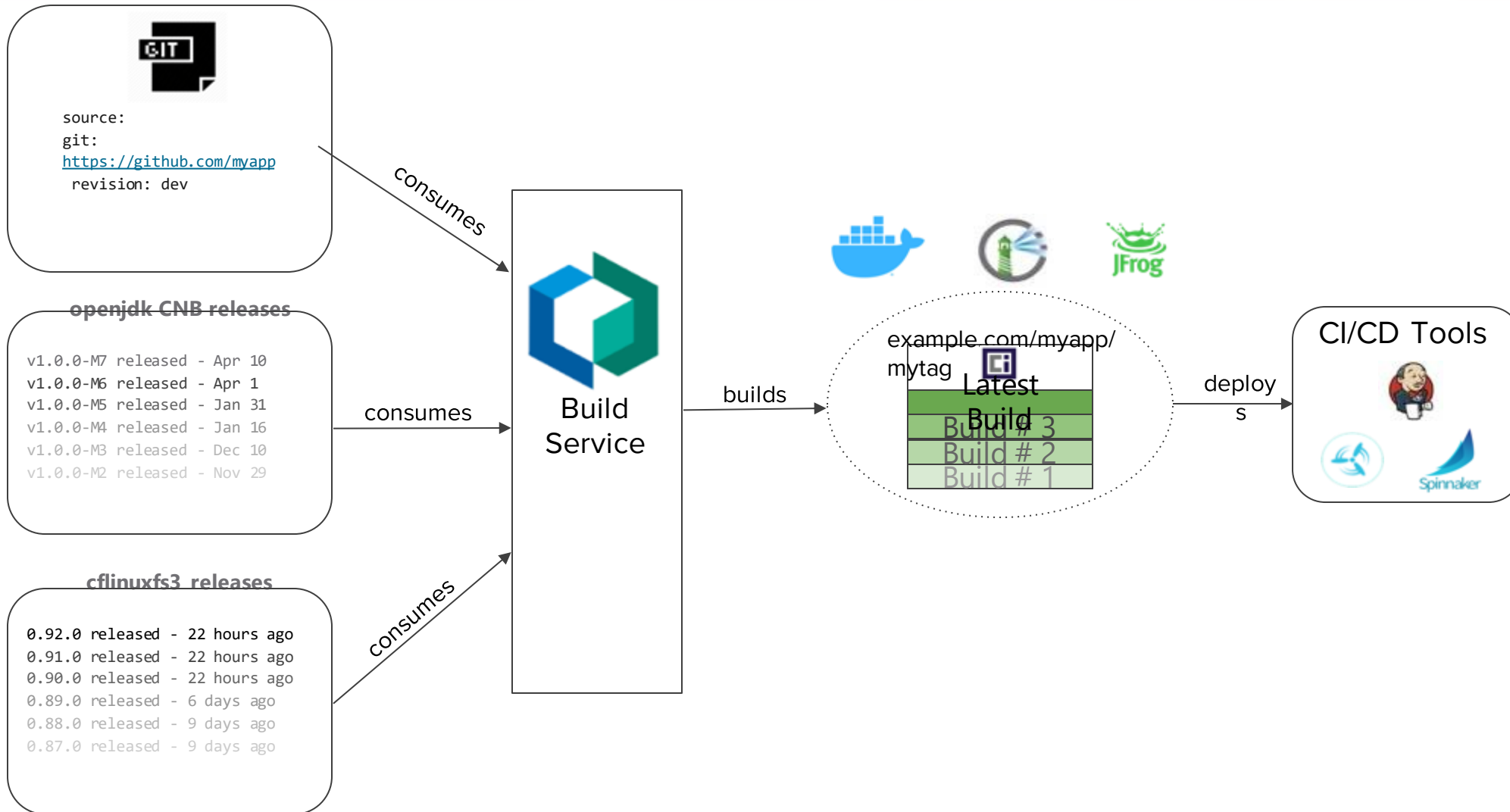




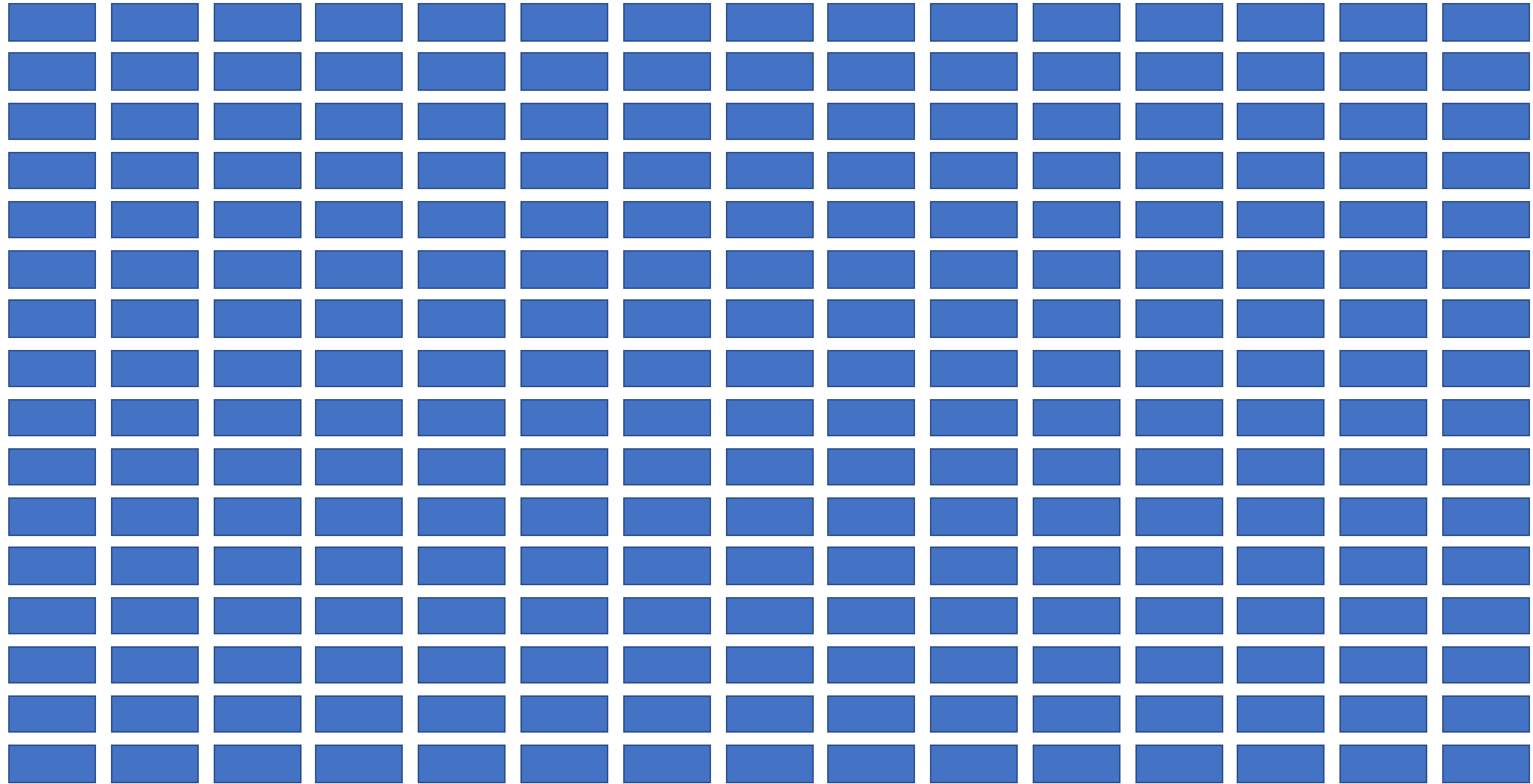
Buildpacks.io (Source to Image)



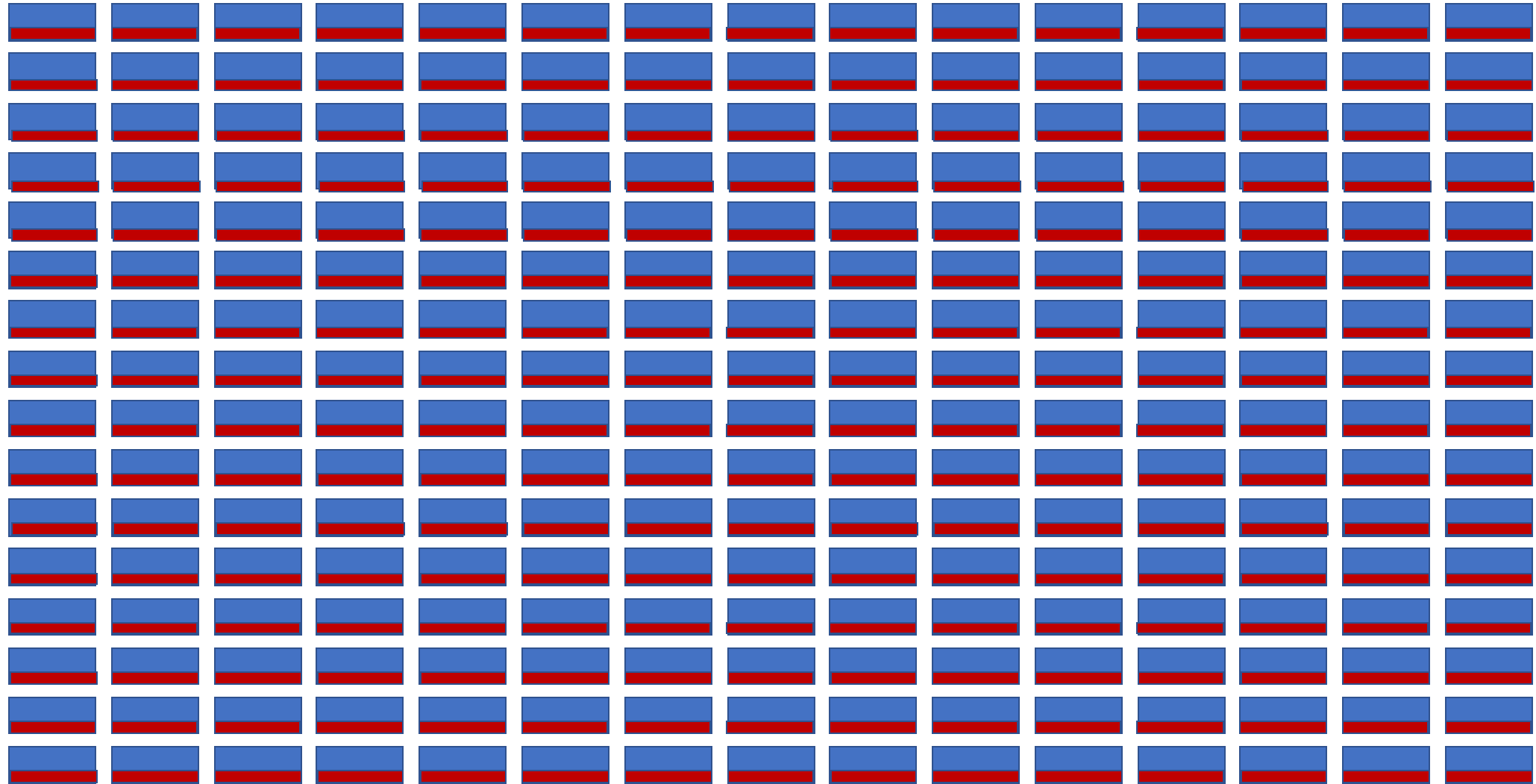
OCI Container Image



# 500 Different Apps...



# How to apply patches?

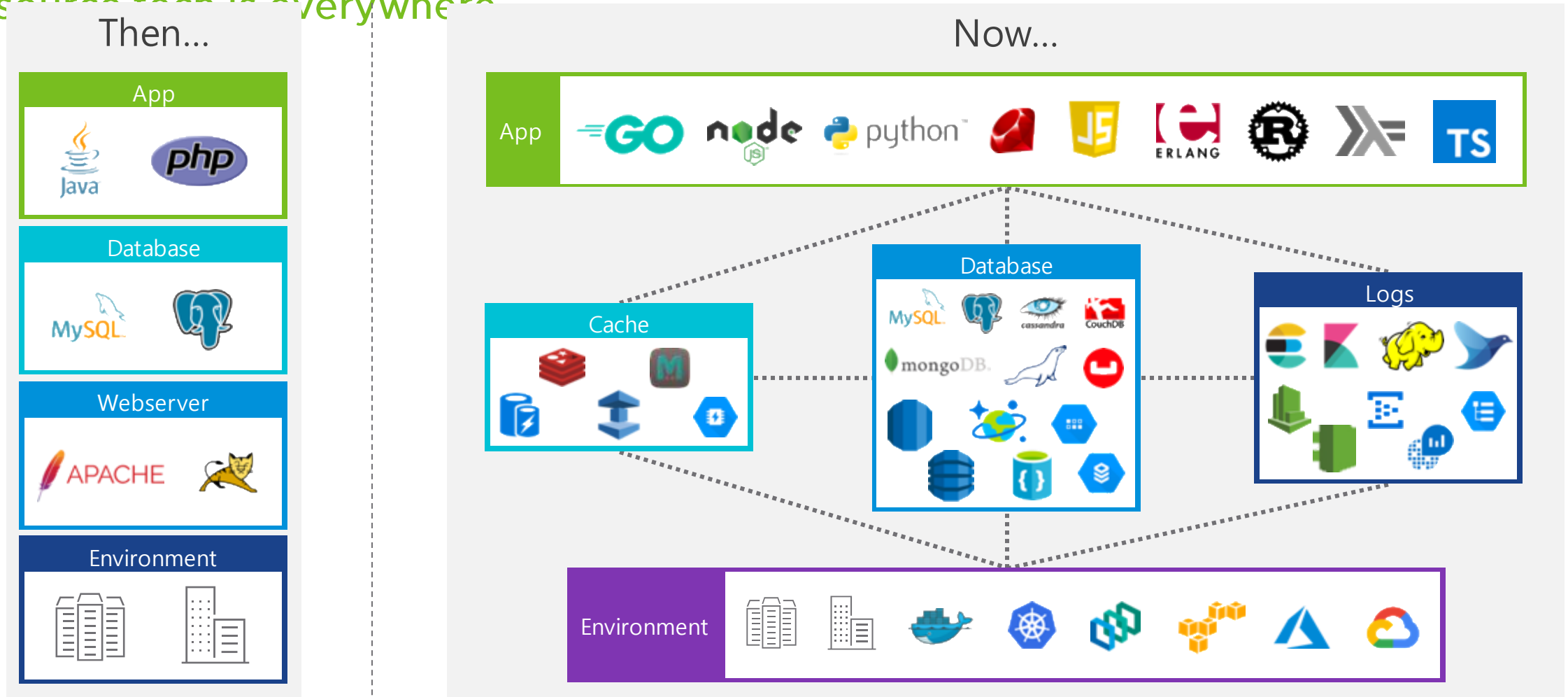


이미지 레지스트리와  
차이점  
관리 문제 언급

# 이미지를 어떻게 관리할까?

Tanzu Application Catalog

We've moved from simple and centralized, to complex and decentralized. Open source tech is everywhere



## Production-ready containers for popular open source software

Language Runtimes

App Components



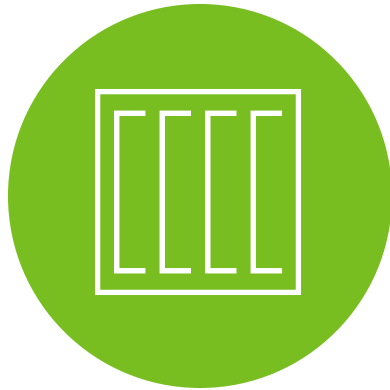
Business Apps

Supporting Apps



## Production-ready containers for popular open source software

Use **Tanzu Application Catalog** and deploy open source with **confidence**:



Golden Image  
Support



Proof of  
Provenance



Proof of Testing

Align Developers and IT around velocity, stability, and security

# Private Catalogs



Welcome to VMware Tanzu Application Catalog.  
All the **applications** are stored in **catalogs**.  
Unleash all the service features by requesting your first catalog

[REQUEST A NEW CATALOG](#)

### New Catalog

- TARGET FORMAT
- BASE IMAGE
- REGISTRY TO STORE THE APPLICATIONS
- APPLICATIONS TO INCLUDE

#### Target format

The format of the assets this catalog will contain.

- Format
- Container Images
  - Helm Charts and required Container Images

CANCEL NEXT

### New Catalog

- TARGET FORMAT
- BASE IMAGE
- REGISTRY TO STORE THE APPLICATIONS
- APPLICATIONS TO INCLUDE

#### Target format

The format of the assets this catalog will contain.

- Format
- Container Images
  - Helm Charts and required Container Images

CANCEL NEXT

### New Catalog

TARGET FORMAT

BASE IMAGE

REGISTRY TO STORE THE APPLICATIONS

APPLICATIONS TO INCLUDE

#### Base image

All the applications in this catalog will be based on the base image you select.

- Base Image
- Custom Base Image
  - Debian 9
  - Debian 10
  - OEL 7
  - CentOS 7
  - Photon 3
  - Other

CANCEL

PREVIOUS

NEXT

## New Catalog

✓ TARGET FORMAT

✓ BASE IMAGE

○ REGISTRY TO STORE THE APPLICATIONS

○ APPLICATIONS TO INCLUDE

### Base image

All the applications in this catalog will be based on the base image you select.

- Base Image
- Custom Base Image
  - Debian 9
  - Debian 10
  - OEL 7
  - CentOS 7
  - Photon 3
  - Other

CANCEL

PREVIOUS

NEXT

## New Catalog

✔️ TARGET FORMAT

✔️ BASE IMAGE

REGISTRY TO STORE THE APPLICATIONS

APPLICATIONS TO INCLUDE

### Registry to store the applications

All the assets and updates will be pushed to a compatible storage.

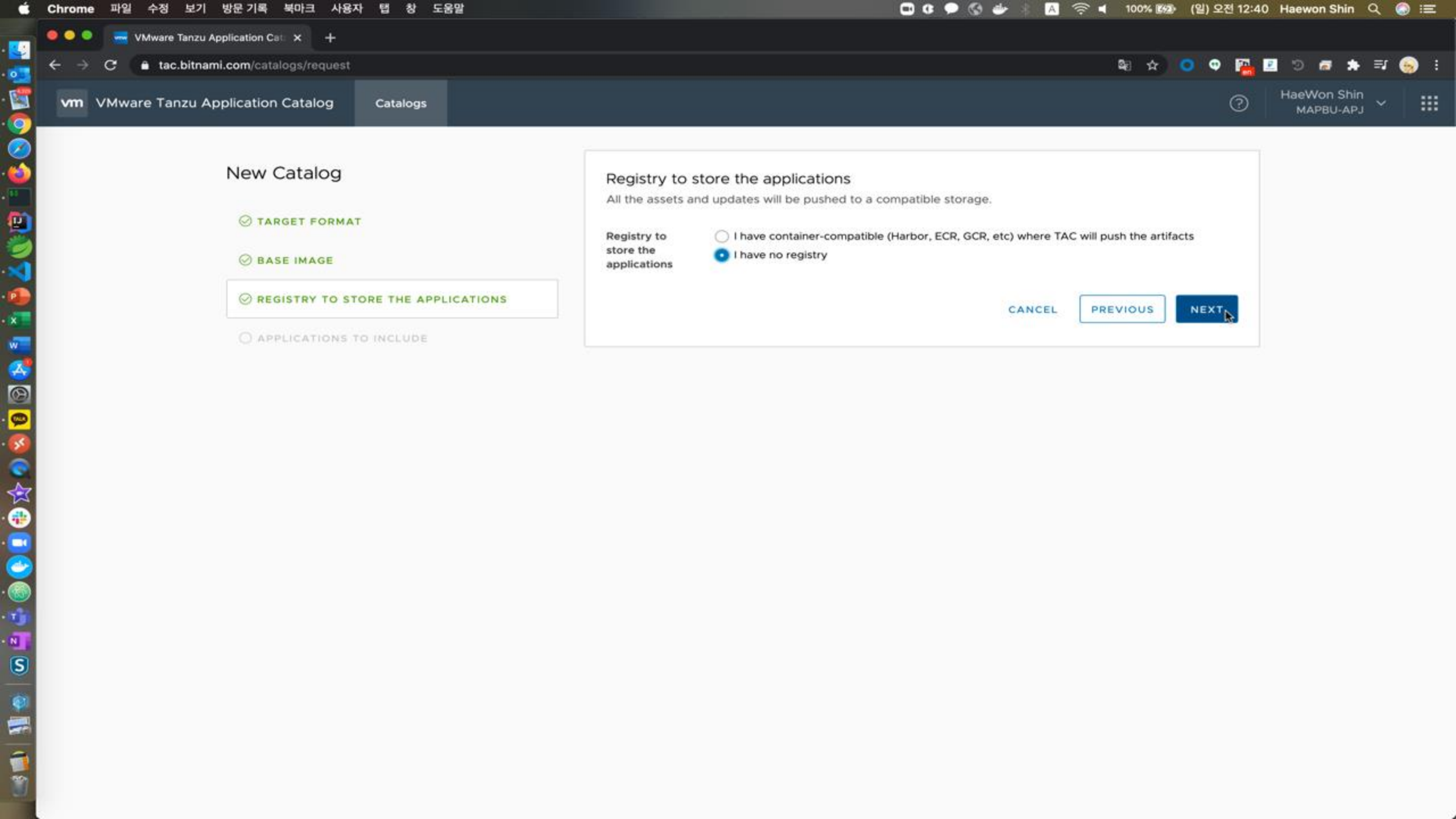
Registry to store the applications

- I have container-compatible (Harbor, ECR, GCR, etc) where TAC will push the artifacts
- I have no registry

CANCEL

PREVIOUS

NEXT



## New Catalog

- TARGET FORMAT
- BASE IMAGE
- REGISTRY TO STORE THE APPLICATIONS
- APPLICATIONS TO INCLUDE

### Registry to store the applications

All the assets and updates will be pushed to a compatible storage.

- Registry to store the applications
- I have container-compatible (Harbor, ECR, GCR, etc) where TAC will push the artifacts
  - I have no registry

CANCEL PREVIOUS NEXT



### New Catalog

- TARGET FORMAT
- BASE IMAGE
- REGISTRY TO STORE THE APPLICATIONS

APPLICATIONS TO INCLUDE

### Applications to include

The list of applications that will be included in this catalog.

- |                                |   |  |   |
|--------------------------------|---|--|---|
| <b>Applications to include</b> | <input type="checkbox"/> Apache Airflow           | <input type="checkbox"/> Apache Airflow Exporter | <input type="checkbox"/> Apache Airflow Scheduler |
|                                | <input type="checkbox"/> Apache Airflow Worker    | <input type="checkbox"/> Aspnet Core             | <input type="checkbox"/> AlertManager             |
|                                | <input type="checkbox"/> Apache                   | <input type="checkbox"/> Apache Exporter         | <input type="checkbox"/> Azure CLI                |
|                                | <input type="checkbox"/> Cassandra                | <input type="checkbox"/> Cassandra Exporter      | <input type="checkbox"/> Chartmuseum              |
|                                | <input type="checkbox"/> ConfigMap Reload         | <input type="checkbox"/> Consul                  | <input type="checkbox"/> Consul Exporter          |
|                                | <input type="checkbox"/> Dotnet                   | <input type="checkbox"/> Dotnet SDK              | <input type="checkbox"/> Elasticsearch            |
|                                | <input type="checkbox"/> Elasticsearch Curator    | <input type="checkbox"/> Elasticsearch Exporter  | <input type="checkbox"/> etcd                     |
|                                | <input type="checkbox"/> ExternalDNS              | <input type="checkbox"/> Fluentd                 | <input type="checkbox"/> Git                      |
|                                | <input type="checkbox"/> Golang                   | <input type="checkbox"/> Google Cloud SDK        | <input type="checkbox"/> Grafana                  |
|                                | <input type="checkbox"/> Harbor Adapter Clair     | <input type="checkbox"/> Harbor Clair            | <input type="checkbox"/> Harbor Core              |
|                                | <input type="checkbox"/> Harbor JobService        | <input type="checkbox"/> Harbor Notary Server    | <input type="checkbox"/> Harbor Notary Signer     |
|                                | <input type="checkbox"/> Harbor Portal            | <input type="checkbox"/> Harbor Registry         | <input type="checkbox"/> Harbor Registryctl       |
|                                | <input type="checkbox"/> InfluxDB                 | <input type="checkbox"/> InfluxDB Relay          | <input type="checkbox"/> Java                     |
|                                | <input type="checkbox"/> Jenkins                  | <input type="checkbox"/> Jenkins Exporter        | <input type="checkbox"/> JMX Exporter             |
|                                | <input type="checkbox"/> Kafka                    | <input type="checkbox"/> Kafka Exporter          | <input type="checkbox"/> Kibana                   |
|                                | <input type="checkbox"/> Kong                     | <input type="checkbox"/> Kong Ingress Controller | <input type="checkbox"/> Kube-state-metrics       |
|                                | <input type="checkbox"/> Kubewatch                | <input type="checkbox"/> logstash                | <input type="checkbox"/> logstash Exporter        |
|                                | <input type="checkbox"/> MariaDB                  | <input type="checkbox"/> MariaDB Galera          | <input type="checkbox"/> Memcached                |
|                                | <input type="checkbox"/> Memcached Exporter       | <input type="checkbox"/> Metrics Server          | <input type="checkbox"/> Minio                    |
|                                | <input type="checkbox"/> Minio Client             | <input type="checkbox"/> MongoDB                 | <input type="checkbox"/> MongoDB Exporter         |
|                                | <input type="checkbox"/> MongoDB Sharded          | <input type="checkbox"/> Moodle                  | <input type="checkbox"/> MXNet                    |
|                                | <input type="checkbox"/> MySQL                    | <input type="checkbox"/> MySQL Server Exporter   | <input type="checkbox"/> NATS                     |
|                                | <input type="checkbox"/> NATS Exporter            | <input type="checkbox"/> NGINX Open Source       | <input type="checkbox"/> NGINX Exporter           |
|                                | <input type="checkbox"/> NGINX Ingress Controller | <input type="checkbox"/> Node.js                 | <input type="checkbox"/> Node Exporter            |
|                                | <input type="checkbox"/> Parse                    | <input type="checkbox"/> Parse Dashboard         | <input type="checkbox"/> Pgpool                   |
|                                | <input type="checkbox"/> PHP-FPM                  | <input type="checkbox"/> PostgreSQL Exporter     | <input type="checkbox"/> PostgreSQL               |
|                                | <input type="checkbox"/> PostgreSQL Repmgr        | <input type="checkbox"/> Prometheus              | <input type="checkbox"/> Prometheus Operator      |
|                                | <input type="checkbox"/> Python                   | <input type="checkbox"/> Pytorch                 | <input type="checkbox"/> RabbitMQ                 |
|                                | <input type="checkbox"/> Redis                    | <input type="checkbox"/> Redis Cluster           | <input type="checkbox"/> Redis Exporter           |
|                                | <input type="checkbox"/> Redis Sentinel           | <input type="checkbox"/> Ruby                    | <input type="checkbox"/> Spark                    |
|                                | <input type="checkbox"/> Tensorflow ResNet        | <input type="checkbox"/> Tensorflow Serving      | <input type="checkbox"/> Thanos                   |
|                                | <input type="checkbox"/> Tomcat                   | <input type="checkbox"/> WildFly                 | <input type="checkbox"/> WordPress                |

### New Catalog

- TARGET FORMAT
- BASE IMAGE
- REGISTRY TO STORE THE APPLICATIONS
- APPLICATIONS TO INCLUDE

### Applications to include

The list of applications that will be included in this catalog.

- |                                |   |  |   |
|--------------------------------|---|--|---|
| <b>Applications to include</b> | <input type="checkbox"/> Apache Airflow           | <input type="checkbox"/> Apache Airflow Exporter | <input type="checkbox"/> Apache Airflow Scheduler |
|                                | <input type="checkbox"/> Apache Airflow Worker    | <input type="checkbox"/> AspNet Core             | <input type="checkbox"/> AlertManager             |
|                                | <input type="checkbox"/> Apache                   | <input type="checkbox"/> Apache Exporter         | <input type="checkbox"/> Azure CLI                |
|                                | <input type="checkbox"/> Cassandra                | <input type="checkbox"/> Cassandra Exporter      | <input type="checkbox"/> Chartmuseum              |
|                                | <input type="checkbox"/> ConfigMap Reload         | <input type="checkbox"/> Consul                  | <input type="checkbox"/> Consul Exporter          |
|                                | <input type="checkbox"/> Dotnet                   | <input type="checkbox"/> Dotnet SDK              | <input type="checkbox"/> Elasticsearch            |
|                                | <input type="checkbox"/> Elasticsearch Curator    | <input type="checkbox"/> Elasticsearch Exporter  | <input type="checkbox"/> etcd                     |
|                                | <input type="checkbox"/> ExternalDNS              | <input type="checkbox"/> Fluentd                 | <input type="checkbox"/> Git                      |
|                                | <input type="checkbox"/> Golang                   | <input type="checkbox"/> Google Cloud SDK        | <input type="checkbox"/> Grafana                  |
|                                | <input type="checkbox"/> Harbor Adapter Clair     | <input type="checkbox"/> Harbor Clair            | <input type="checkbox"/> Harbor Core              |
|                                | <input type="checkbox"/> Harbor JobService        | <input type="checkbox"/> Harbor Notary Server    | <input type="checkbox"/> Harbor Notary Signer     |
|                                | <input type="checkbox"/> Harbor Portal            | <input type="checkbox"/> Harbor Registry         | <input type="checkbox"/> Harbor Registryctl       |
|                                | <input type="checkbox"/> InfluxDB                 | <input type="checkbox"/> InfluxDB Relay          | <input type="checkbox"/> Java                     |
|                                | <input type="checkbox"/> Jenkins                  | <input type="checkbox"/> Jenkins Exporter        | <input type="checkbox"/> JMX Exporter             |
|                                | <input type="checkbox"/> Kafka                    | <input type="checkbox"/> Kafka Exporter          | <input type="checkbox"/> Kibana                   |
|                                | <input type="checkbox"/> Kong                     | <input type="checkbox"/> Kong Ingress Controller | <input type="checkbox"/> Kube-state-metrics       |
|                                | <input type="checkbox"/> Kubewatch                | <input type="checkbox"/> logstash                | <input type="checkbox"/> logstash Exporter        |
|                                | <input type="checkbox"/> MariaDB                  | <input type="checkbox"/> MariaDB Galera          | <input type="checkbox"/> Memcached                |
|                                | <input type="checkbox"/> Memcached Exporter       | <input type="checkbox"/> Metrics Server          | <input type="checkbox"/> Minio                    |
|                                | <input type="checkbox"/> Minio Client             | <input type="checkbox"/> MongoDB                 | <input type="checkbox"/> MongoDB Exporter         |
|                                | <input type="checkbox"/> MongoDB Sharded          | <input type="checkbox"/> Moodle                  | <input type="checkbox"/> MXNet                    |
|                                | <input checked="" type="checkbox"/> MySQL         | <input type="checkbox"/> MySQL Server Exporter   | <input type="checkbox"/> NATS                     |
|                                | <input type="checkbox"/> NATS Exporter            | <input type="checkbox"/> NGINX Open Source       | <input type="checkbox"/> NGINX Exporter           |
|                                | <input type="checkbox"/> NGINX Ingress Controller | <input type="checkbox"/> Node.js                 | <input type="checkbox"/> Node Exporter            |
|                                | <input type="checkbox"/> Parse                    | <input type="checkbox"/> Parse Dashboard         | <input type="checkbox"/> Pgpool                   |
|                                | <input type="checkbox"/> PHP-FPM                  | <input type="checkbox"/> PostgreSQL Exporter     | <input type="checkbox"/> PostgreSQL               |
|                                | <input type="checkbox"/> PostgreSQL Repmgr        | <input type="checkbox"/> Prometheus              | <input type="checkbox"/> Prometheus Operator      |
|                                | <input type="checkbox"/> Python                   | <input type="checkbox"/> Pytorch                 | <input type="checkbox"/> RabbitMQ                 |
|                                | <input type="checkbox"/> Redis                    | <input type="checkbox"/> Redis Cluster           | <input type="checkbox"/> Redis Exporter           |
|                                | <input type="checkbox"/> Redis Sentinel           | <input type="checkbox"/> Ruby                    | <input type="checkbox"/> Spark                    |
|                                | <input type="checkbox"/> Tensorflow ResNet        | <input type="checkbox"/> Tensorflow Serving      | <input type="checkbox"/> Thanos                   |
|                                | <input type="checkbox"/> Tomcat                   | <input type="checkbox"/> WildFly                 | <input type="checkbox"/> WordPress                |

## New Catalog

- TARGET FORMAT
- BASE IMAGE
- REGISTRY TO STORE THE APPLICATIONS
- APPLICATIONS TO INCLUDE

### Applications to include

The list of applications that will be included in this catalog.

- |   |  |  |   |
|---|--|--|---|
| <b>Applications to include</b>                    | <input type="checkbox"/> Apache Airflow        | <input type="checkbox"/> Apache Airflow Exporter | <input type="checkbox"/> Apache Airflow Scheduler |
|   | <input type="checkbox"/> Apache Airflow Worker | <input type="checkbox"/> AspNet Core             | <input type="checkbox"/> AlertManager             |
|   | <input type="checkbox"/> Apache                | <input type="checkbox"/> Apache Exporter         | <input type="checkbox"/> Azure CLI                |
|   | <input type="checkbox"/> Cassandra             | <input type="checkbox"/> Cassandra Exporter      | <input type="checkbox"/> Chartmuseum              |
|   | <input type="checkbox"/> ConfigMap Reload      | <input type="checkbox"/> Consul                  | <input type="checkbox"/> Consul Exporter          |
|   | <input type="checkbox"/> Dotnet                | <input type="checkbox"/> Dotnet SDK              | <input type="checkbox"/> Elasticsearch            |
|   | <input type="checkbox"/> Elasticsearch Curator | <input type="checkbox"/> Elasticsearch Exporter  | <input type="checkbox"/> etcd                     |
|   | <input type="checkbox"/> ExternalDNS           | <input type="checkbox"/> Fluentd                 | <input type="checkbox"/> Git                      |
|   | <input type="checkbox"/> Golang                | <input type="checkbox"/> Google Cloud SDK        | <input type="checkbox"/> Grafana                  |
|   | <input type="checkbox"/> Harbor Adapter Clair  | <input type="checkbox"/> Harbor Clair            | <input type="checkbox"/> Harbor Core              |
|   | <input type="checkbox"/> Harbor JobService     | <input type="checkbox"/> Harbor Notary Server    | <input type="checkbox"/> Harbor Notary Signer     |
|   | <input type="checkbox"/> Harbor Portal         | <input type="checkbox"/> Harbor Registry         | <input type="checkbox"/> Harbor Registryctl       |
|   | <input type="checkbox"/> InfluxDB              | <input type="checkbox"/> InfluxDB Relay          | <input type="checkbox"/> Java                     |
|   | <input type="checkbox"/> Jenkins               | <input type="checkbox"/> Jenkins Exporter        | <input type="checkbox"/> JMX Exporter             |
|   | <input type="checkbox"/> Kafka                 | <input type="checkbox"/> Kafka Exporter          | <input type="checkbox"/> Kibana                   |
|   | <input type="checkbox"/> Kong                  | <input type="checkbox"/> Kong Ingress Controller | <input type="checkbox"/> Kube-state-metrics       |
|   | <input type="checkbox"/> Kubewatch             | <input type="checkbox"/> logstash                | <input type="checkbox"/> logstash Exporter        |
|   | <input type="checkbox"/> MariaDB               | <input type="checkbox"/> MariaDB Galera          | <input type="checkbox"/> Memcached                |
|   | <input type="checkbox"/> Memcached Exporter    | <input type="checkbox"/> Metrics Server          | <input type="checkbox"/> Minio                    |
|   | <input type="checkbox"/> Minio Client          | <input type="checkbox"/> MongoDB                 | <input type="checkbox"/> MongoDB Exporter         |
| <input type="checkbox"/> MongoDB Sharded          | <input type="checkbox"/> Moodle                | <input type="checkbox"/> MXNet                   |   |
| <input checked="" type="checkbox"/> MySQL         | <input type="checkbox"/> MySQL Server Exporter | <input type="checkbox"/> NATS                    |   |
| <input type="checkbox"/> NATS Exporter            | <input type="checkbox"/> NGINX Open Source     | <input type="checkbox"/> NGINX Exporter          |   |
| <input type="checkbox"/> NGINX Ingress Controller | <input type="checkbox"/> Node.js               | <input type="checkbox"/> Node Exporter           |   |
| <input type="checkbox"/> Parse                    | <input type="checkbox"/> Parse Dashboard       | <input type="checkbox"/> Pgpool                  |   |
| <input type="checkbox"/> PHP-FPM                  | <input type="checkbox"/> PostgreSQL Exporter   | <input type="checkbox"/> PostgreSQL              |   |
| <input type="checkbox"/> PostgreSQL Repmgr        | <input type="checkbox"/> Prometheus            | <input type="checkbox"/> Prometheus Operator     |   |
| <input type="checkbox"/> Python                   | <input type="checkbox"/> Pytorch               | <input type="checkbox"/> RabbitMQ                |   |
| <input checked="" type="checkbox"/> Redis         | <input type="checkbox"/> Redis Cluster         | <input type="checkbox"/> Redis Exporter          |   |
| <input type="checkbox"/> Redis Sentinel           | <input type="checkbox"/> Ruby                  | <input type="checkbox"/> Spark                   |   |
| <input type="checkbox"/> Tensorflow ResNet        | <input type="checkbox"/> Tensorflow Serving    | <input type="checkbox"/> Thanos                  |   |
| <input type="checkbox"/> Tomcat                   | <input type="checkbox"/> WildFly               | <input type="checkbox"/> WordPress               |   |

## New Catalog

- TARGET FORMAT
- BASE IMAGE
- REGISTRY TO STORE THE APPLICATIONS
- APPLICATIONS TO INCLUDE

### Applications to include

The list of applications that will be included in this catalog.

- |                                |   |  |   |
|--------------------------------|---|--|---|
| <b>Applications to include</b> | <input type="checkbox"/> Apache Airflow           | <input type="checkbox"/> Apache Airflow Exporter | <input type="checkbox"/> Apache Airflow Scheduler |
|                                | <input type="checkbox"/> Apache Airflow Worker    | <input type="checkbox"/> AspNet Core             | <input type="checkbox"/> AlertManager             |
|                                | <input type="checkbox"/> Apache                   | <input type="checkbox"/> Apache Exporter         | <input type="checkbox"/> Azure CLI                |
|                                | <input type="checkbox"/> Cassandra                | <input type="checkbox"/> Cassandra Exporter      | <input type="checkbox"/> Chartmuseum              |
|                                | <input type="checkbox"/> ConfigMap Reload         | <input type="checkbox"/> Consul                  | <input type="checkbox"/> Consul Exporter          |
|                                | <input type="checkbox"/> Dotnet                   | <input type="checkbox"/> Dotnet SDK              | <input type="checkbox"/> Elasticsearch            |
|                                | <input type="checkbox"/> Elasticsearch Curator    | <input type="checkbox"/> Elasticsearch Exporter  | <input type="checkbox"/> etcd                     |
|                                | <input type="checkbox"/> ExternalDNS              | <input type="checkbox"/> Fluentd                 | <input type="checkbox"/> Git                      |
|                                | <input type="checkbox"/> Golang                   | <input type="checkbox"/> Google Cloud SDK        | <input type="checkbox"/> Grafana                  |
|                                | <input type="checkbox"/> Harbor Adapter Clair     | <input type="checkbox"/> Harbor Clair            | <input type="checkbox"/> Harbor Core              |
|                                | <input type="checkbox"/> Harbor JobService        | <input type="checkbox"/> Harbor Notary Server    | <input type="checkbox"/> Harbor Notary Signer     |
|                                | <input type="checkbox"/> Harbor Portal            | <input type="checkbox"/> Harbor Registry         | <input type="checkbox"/> Harbor Registryctl       |
|                                | <input type="checkbox"/> InfluxDB                 | <input type="checkbox"/> InfluxDB Relay          | <input checked="" type="checkbox"/> Java          |
|                                | <input type="checkbox"/> Jenkins                  | <input type="checkbox"/> Jenkins Exporter        | <input type="checkbox"/> JMX Exporter             |
|                                | <input type="checkbox"/> Kafka                    | <input type="checkbox"/> Kafka Exporter          | <input type="checkbox"/> Kibana                   |
|                                | <input type="checkbox"/> Kong                     | <input type="checkbox"/> Kong Ingress Controller | <input type="checkbox"/> Kube-state-metrics       |
|                                | <input type="checkbox"/> Kubewatch                | <input type="checkbox"/> logstash                | <input type="checkbox"/> logstash Exporter        |
|                                | <input type="checkbox"/> MariaDB                  | <input type="checkbox"/> MariaDB Galera          | <input type="checkbox"/> Memcached                |
|                                | <input type="checkbox"/> Memcached Exporter       | <input type="checkbox"/> Metrics Server          | <input type="checkbox"/> Minio                    |
|                                | <input type="checkbox"/> Minio Client             | <input type="checkbox"/> MongoDB                 | <input type="checkbox"/> MongoDB Exporter         |
|                                | <input type="checkbox"/> MongoDB Sharded          | <input type="checkbox"/> Moodle                  | <input type="checkbox"/> MXNet                    |
|                                | <input checked="" type="checkbox"/> MySQL         | <input type="checkbox"/> MySQL Server Exporter   | <input type="checkbox"/> NATS                     |
|                                | <input type="checkbox"/> NATS Exporter            | <input type="checkbox"/> NGINX Open Source       | <input type="checkbox"/> NGINX Exporter           |
|                                | <input type="checkbox"/> NGINX Ingress Controller | <input type="checkbox"/> Node.js                 | <input type="checkbox"/> Node Exporter            |
|                                | <input type="checkbox"/> Parse                    | <input type="checkbox"/> Parse Dashboard         | <input type="checkbox"/> Pgpool                   |
|                                | <input type="checkbox"/> PHP-FPM                  | <input type="checkbox"/> PostgreSQL Exporter     | <input type="checkbox"/> PostgreSQL               |
|                                | <input type="checkbox"/> PostgreSQL Repmgr        | <input type="checkbox"/> Prometheus              | <input type="checkbox"/> Prometheus Operator      |
|                                | <input type="checkbox"/> Python                   | <input type="checkbox"/> Pytorch                 | <input type="checkbox"/> RabbitMQ                 |
|                                | <input checked="" type="checkbox"/> Redis         | <input type="checkbox"/> Redis Cluster           | <input type="checkbox"/> Redis Exporter           |
|                                | <input type="checkbox"/> Redis Sentinel           | <input type="checkbox"/> Ruby                    | <input type="checkbox"/> Spark                    |
|                                | <input type="checkbox"/> Tensorflow ResNet        | <input type="checkbox"/> Tensorflow Serving      | <input type="checkbox"/> Thanos                   |
|                                | <input type="checkbox"/> Tomcat                   | <input type="checkbox"/> WildFly                 | <input type="checkbox"/> WordPress                |

- ✓ BASE IMAGE
- ✓ REGISTRY TO STORE THE APPLICATIONS
- ✓ APPLICATIONS TO INCLUDE

- |   |  |   |
|---|--|---|
| <input type="checkbox"/> Apache Airflow Worker    | <input type="checkbox"/> Aspnet Core             | <input type="checkbox"/> AlertManager         |
| <input type="checkbox"/> Apache                   | <input type="checkbox"/> Apache Exporter         | <input type="checkbox"/> Azure CLI            |
| <input type="checkbox"/> Cassandra                | <input type="checkbox"/> Cassandra Exporter      | <input type="checkbox"/> Chartmuseum          |
| <input type="checkbox"/> ConfigMap Reload         | <input type="checkbox"/> Consul                  | <input type="checkbox"/> Consul Exporter      |
| <input type="checkbox"/> Dotnet                   | <input type="checkbox"/> Dotnet SDK              | <input type="checkbox"/> Elasticsearch        |
| <input type="checkbox"/> Elasticsearch Curator    | <input type="checkbox"/> Elasticsearch Exporter  | <input type="checkbox"/> etcd                 |
| <input type="checkbox"/> ExternalDNS              | <input type="checkbox"/> Fluentd                 | <input type="checkbox"/> Git                  |
| <input type="checkbox"/> Golang                   | <input type="checkbox"/> Google Cloud SDK        | <input type="checkbox"/> Grafana              |
| <input type="checkbox"/> Harbor Adapter Clair     | <input type="checkbox"/> Harbor Clair            | <input type="checkbox"/> Harbor Core          |
| <input type="checkbox"/> Harbor JobService        | <input type="checkbox"/> Harbor Notary Server    | <input type="checkbox"/> Harbor Notary Signer |
| <input type="checkbox"/> Harbor Portal            | <input type="checkbox"/> Harbor Registry         | <input type="checkbox"/> Harbor Registryctl   |
| <input type="checkbox"/> InfluxDB                 | <input type="checkbox"/> InfluxDB Relay          | <input checked="" type="checkbox"/> Java      |
| <input type="checkbox"/> Jenkins                  | <input type="checkbox"/> Jenkins Exporter        | <input type="checkbox"/> JMX Exporter         |
| <input type="checkbox"/> Kafka                    | <input type="checkbox"/> Kafka Exporter          | <input type="checkbox"/> Kibana               |
| <input type="checkbox"/> Kong                     | <input type="checkbox"/> Kong Ingress Controller | <input type="checkbox"/> Kube-state-metrics   |
| <input type="checkbox"/> Kubewatch                | <input type="checkbox"/> logstash                | <input type="checkbox"/> logstash Exporter    |
| <input type="checkbox"/> MariaDB                  | <input type="checkbox"/> MariaDB Galera          | <input type="checkbox"/> Memcached            |
| <input type="checkbox"/> Memcached Exporter       | <input type="checkbox"/> Metrics Server          | <input type="checkbox"/> Minio                |
| <input type="checkbox"/> Minio Client             | <input type="checkbox"/> MongoDB                 | <input type="checkbox"/> MongoDB Exporter     |
| <input type="checkbox"/> MongoDB Sharded          | <input type="checkbox"/> Moodle                  | <input type="checkbox"/> MXNet                |
| <input checked="" type="checkbox"/> MySQL         | <input type="checkbox"/> MySQL Server Exporter   | <input type="checkbox"/> NATS                 |
| <input type="checkbox"/> NATS Exporter            | <input type="checkbox"/> NGINX Open Source       | <input type="checkbox"/> NGINX Exporter       |
| <input type="checkbox"/> NGINX Ingress Controller | <input type="checkbox"/> Node.js                 | <input type="checkbox"/> Node Exporter        |
| <input type="checkbox"/> Parse                    | <input type="checkbox"/> Parse Dashboard         | <input type="checkbox"/> Pgpool               |
| <input type="checkbox"/> PHP-FPM                  | <input type="checkbox"/> PostgreSQL Exporter     | <input type="checkbox"/> PostgreSQL           |
| <input type="checkbox"/> PostgreSQL Repmgr        | <input type="checkbox"/> Prometheus              | <input type="checkbox"/> Prometheus Operator  |
| <input type="checkbox"/> Python                   | <input type="checkbox"/> Pytorch                 | <input type="checkbox"/> RabbitMQ             |
| <input checked="" type="checkbox"/> Redis         | <input type="checkbox"/> Redis Cluster           | <input type="checkbox"/> Redis Exporter       |
| <input type="checkbox"/> Redis Sentinel           | <input type="checkbox"/> Ruby                    | <input type="checkbox"/> Spark                |
| <input type="checkbox"/> Tensorflow ResNet        | <input type="checkbox"/> Tensorflow Serving      | <input type="checkbox"/> Thanos               |
| <input type="checkbox"/> Tomcat                   | <input type="checkbox"/> WildFly                 | <input type="checkbox"/> WordPress            |
| <input type="checkbox"/> Zookeeper                |  |   |

CANCEL PREVIOUS SUBMIT

# Private Catalogs



We have received your request and we will reply back to you once your Catalog is ready.

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# Private Catalogs

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Helm charts catalog

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# Private Catalogs

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Helm charts catalog

[VIEW](#) 41 Applications



# ← Helm charts catalog

Application	Version	Status	Last Release	
 Apache	2.4.43	✔ Released	2 weeks ago	<a href="#">DETAILS</a>
 Apache Airflow	1.10.10	✔ Released	1 week ago	<a href="#">DETAILS</a>
 Apache Cassandra	3.11.6	✔ Released	4 days ago	<a href="#">DETAILS</a>
 Apache Kafka	2.5.0	✔ Released	4 days ago	<a href="#">DETAILS</a>
 Apache Tomcat	9.0.35	✔ Released	4 days ago	<a href="#">DETAILS</a>
 Apache ZooKeeper	3.6.1	✔ Released	4 days ago	<a href="#">DETAILS</a>
 Elasticsearch	7.7.0	✔ Released	1 week ago	<a href="#">DETAILS</a>
 etcd	3.4.9	✔ Released	1 day ago	<a href="#">DETAILS</a>
 ExternalDNS	0.7.1	✔ Released	4 days ago	<a href="#">DETAILS</a>
 Fluentd	1.10.4	✔ Released	1 week ago	<a href="#">DETAILS</a>

 Nginx	1.17.10	 Released	1 week ago	<a href="#">DETAILS</a>
 Parse	4.2.0	 Released	2 weeks ago	<a href="#">DETAILS</a>
 PostgreSQL	11.8.0	 Released	2 days ago	<a href="#">DETAILS</a>
 PostgreSQL with Replication manager	11.8.0	 Released	2 days ago	<a href="#">DETAILS</a>
 Prometheus Node Exporter	0.18.1	 Released	2 weeks ago	<a href="#">DETAILS</a>
 Prometheus Operator	0.39.0	 Released	1 week ago	<a href="#">DETAILS</a>
 PyTorch	1.5.0	 Released	4 days ago	<a href="#">DETAILS</a>
 RabbitMQ	3.8.3	 Released	2 weeks ago	<a href="#">DETAILS</a>
 Redis	6.0.3	 Released	4 days ago	<a href="#">DETAILS</a>
 Spark	2.4.5	 Released	1 week ago	<a href="#">DETAILS</a>
 TensorFlow ResNet	2.1.0	 Released	2 weeks ago	<a href="#">DETAILS</a>
 Thanos	0.12.2	 Released	3 weeks ago	<a href="#">DETAILS</a>
 WildFly	19.1.0	 Released	2 weeks ago	<a href="#">DETAILS</a>
 WordPress	5.4.1	 Released	5 days ago	<a href="#">DETAILS</a>

← Helm charts catalog



Released	Version 6.0.3	Revision 1	Released at 2020. 5. 19. 오후 5:04:38
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Redis is an open source, advanced key-value store. It is often referred to as a data structure server since keys can contain strings, hashes, lists, sets and sorted sets.

### Release Information

Helm Install

```
$ helm repo add MY_REPO https://charts.trials.tac.bitnami.com/demo --username "USER" --password "PASSWORD"
$ helm install MY_REPO/redis --version 10.6.5
```

Note that you may need to provide the right values for MY\_REPO, USERNAME and PASSWORD placeholders depending on your repository.

### Chart information

Digest	sha256:cc50df36b9255ffe554551e414f31ea85a8d7c04b6d411043b150871baebd845
Name	redis
Version	10.6.5
Url	https://charts.trials.tac.bitnami.com/demo/redis-10.6.5.tgz

### Dependencies

Dependencies are assets (container images) delivered as part of this application. Click on any of them to inspect its details.

Redis Container Image	Released	Version 6.0.3	Revision 7	Released at 2020. 5. 23. 오전 4:18:39
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← Redis (Helm Chart)

This Container Image is part of Redis (Helm Chart)



Released	Version 6.0.3	Revision 7	Released at 2020. 5. 23. 오전 4:18:39
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Redis is an open source, advanced key-value store. It is often referred to as a data structure server since keys can contain strings, hashes, lists, sets and sorted sets.

### Image References

Digest

```
gcr.io/sys-2b0109it/demo/bitnami/redis@sha256:c389a23c163959e9f7c103432c307d25d591ecla94f  
e02f05e7f99561dfc9c74
```

Container Tags

- gcr.io/sys-2b0109it/demo/bitnami/redis:6.0-centos-7
- gcr.io/sys-2b0109it/demo/bitnami/redis:6.0.3-centos-7-r7


### Reports

Every report contains information that was generated during the build process.

Name	Filename	
Antivirus Scan Result	clamav-antivirus-scan.log	DOWNLOAD
CVE Scan Result	cve-scanner-output.json	DOWNLOAD

← Redis (Helm Chart)

This Container Image is part of Redis (Helm Chart)



# Redis

Container Image

Redis is an open source, advanced key-value store that contains strings, hashes, lists, sets and sorted sets.

## Image References

Digest

```
gcr.io/sys-2b0109it/demo/bitnami/redis:e02f05e7f99561dfc9c74
```

## Reports

Every report contains information that was generated during the scan.

Name
Antivirus Scan Result
CVE Scan Result

```

Welcome
() cve-scanner-output.json
 clamav-antivirus-scan (1).log X
Users > hshin > Downloads > clamav-antivirus-scan (1).log
10423 /etc/virc: OK
10424 /etc/skel/.bashrc: OK
10425 /etc/skel/.bash_profile: OK
10426 /etc/skel/.bash_logout: OK
10427 /etc/login.defs: OK
10428 /etc/depmod.d/dist.conf: OK
10429 /etc/hosts.allow: OK
10430 /etc/libuser.conf: OK
10431 /etc/issue.net: OK
10432 /etc/system-release-cpe: OK
10433 /etc/xdg/systemd/user: Symbolic link
10434 /etc/ssl/certs: Symbolic link
10435 /etc/libaudit.conf: OK
10436 /etc/nsswitch.conf: OK
10437 /etc/rpm/macros.dist: OK
10438 /etc/protocols: OK
10439 /etc/dracut.conf: OK
10440 /etc/csh.cshrc: OK
10441 /etc/securetty: OK
10442 /etc/subgid: Empty file
10443 /etc/ld.so.conf: OK
10444 /etc/shells: OK
10445 /etc/localtime: Symbolic link
10446 /etc/DIR_COLORS.lightbgcolor: OK
10447
10448 ----- SCAN SUMMARY -----
10449 Known viruses: 7016614
10450 Engine version: 0.102.2
10451 Scanned directories: 982
10452 Scanned files: 10031
10453 Infected files: 0
10454 Data scanned: 309.38 MB
10455 Data read: 210.44 MB (ratio 1.47:1)
10456 Time: 53.558 sec (0 m 53 s)
10457

```

Released at  
2020. 5. 23. 오전 4:18:39

DOWNLOAD

DOWNLOAD

# 마이크로서비스를 위한 새로운 플랫폼

Tanzu Application Service

Increase speed and deploy code to production thousands of times per month.

Day 2 Microservice (Blue/Green, Discover, Break, Config)

Logging, Metrics, Trace, Self Healing, Auto Scaling

Encrypt, Isolation Segments, Orgs/Spaces, Audit, RBAC

Buildpacks, API Gateway, Routing/Load Balancing, Service Mesh, C2C

Orchestration, Registry, Multi-cluster, Management, Conformance, Tenancy, API Based



Platform-as-a-Product  
(Pipelines, Healthwatch)

VMs & Storage  
as API (Cloud  
Provider Interface)

Embedded OS  
(Windows & Linux)

Network as API  
(Micro  
Segments)

Continuously  
Secured (Rotate,  
Repair, Repave)



Private



Public



Hybrid

cf push

Best runtime for Spring and Spring Boot

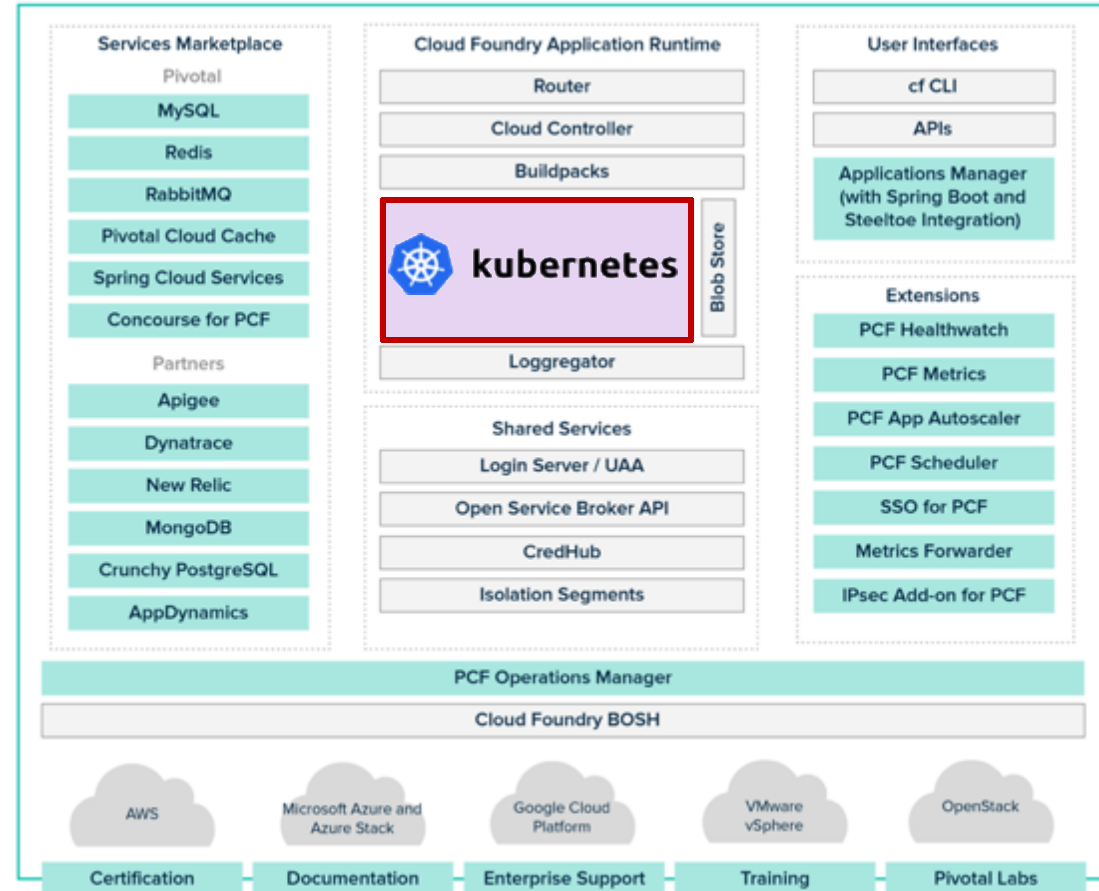
Turnkey microservices operations and security

A native Windows and .NET experience

Built for apps

Container-ready

*Kubernetes는 플랫폼을 만들기 위한  
"시작점"에 불과하다.*

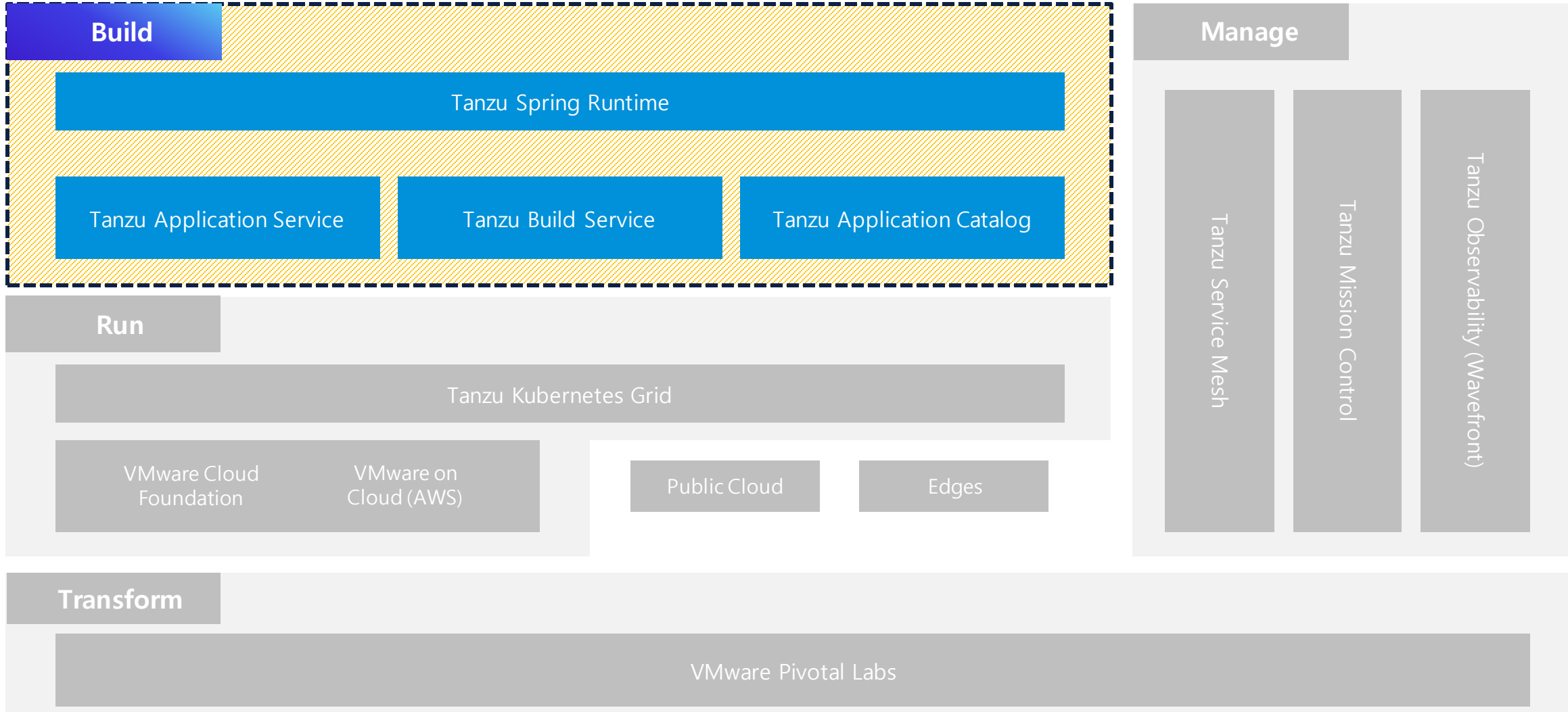




# 이 모든 것을 하나로 제공 받을 수는 없나?

Tanzu Build

## VMware Tanzu



**Cloud-Native Day**  
**2020 Korea**  
*LIVE!*

**THE END.**