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New Helm Chart Installation Experience with Visual and Repeatable approach

Steven Zou/邹佳 @ VMware
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Who am I?



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Steven Zou / 邹佳

- Staff engineer @ VMware R&D center
- Core maintainer of open source project Harbor
- Focus on cloud computing, container etc.

Challenges & Motivations



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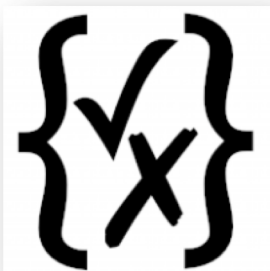
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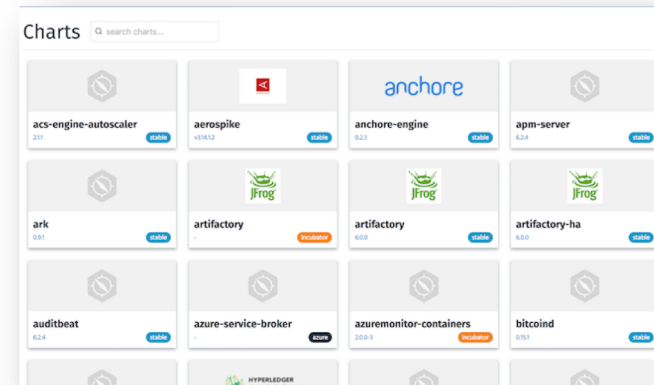
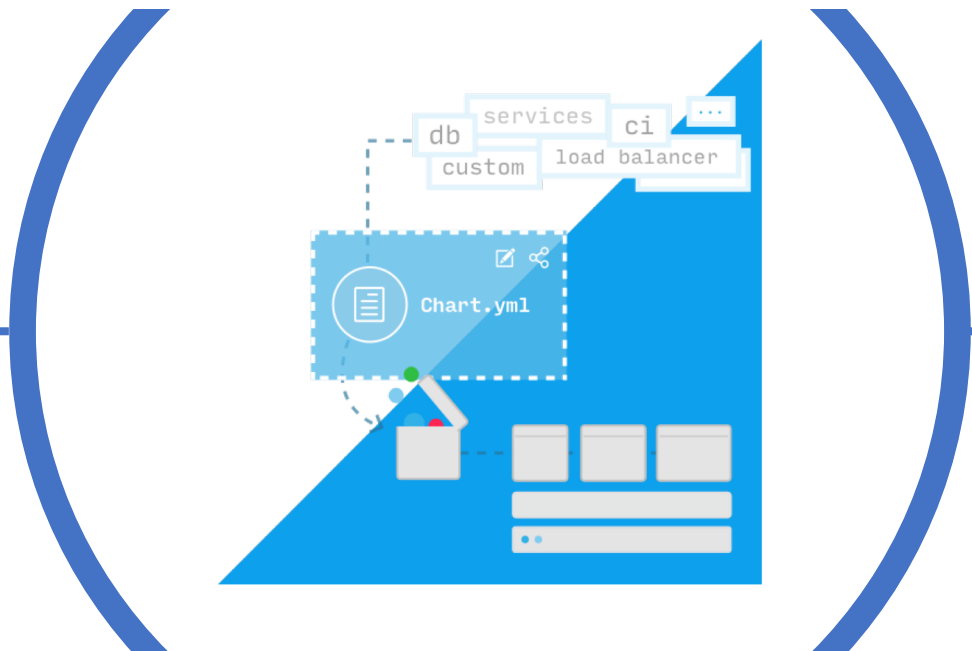
```
helm install --name kubecon2019 \  
--set demo.core.resources.requests.cpu="500m" \  
--set demo.core.resources.limits.cpu="2" \  
--set demo.core.resources.requests.memory="1Gi" \  
--set demo.core.resources.limits.memory="4Gi" \  
--set demo.core.javaOpts.xmx="1g" \  
--set demo.core.javaOpts.xmx="4g" \  
--set demo.node.resources.requests.cpu="500m" \  
--set demo.node.resources.limits.cpu="2" \  
--set demo.node.resources.requests.memory="1Gi" \  
--set demo.node.resources.limits.memory="4Gi" \  
--set demo.node.javaOpts.xmx="1g" \  
--set demo.node.javaOpts.xmx="4g" \  
--set postgresql.resources.requests.cpu="200m" \  
--set postgresql.resources.limits.cpu="1" \  
--set postgresql.resources.requests.memory="500Mi" \  
--set postgresql.resources.limits.memory="1Gi" \  
--set nginx.resources.requests.cpu="100m" \  
--set nginx.resources.limits.cpu="250m" \  
--set nginx.resources.requests.memory="250Mi" \  
--set nginx.resources.limits.memory="500Mi" \  
demo/kubecon2019
```

--set / -f

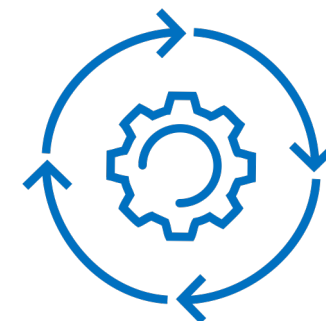
Deployment Settings



No Value Schema for validation



No good and unified UE for installing



Custom settings not repeatable

Main Idea



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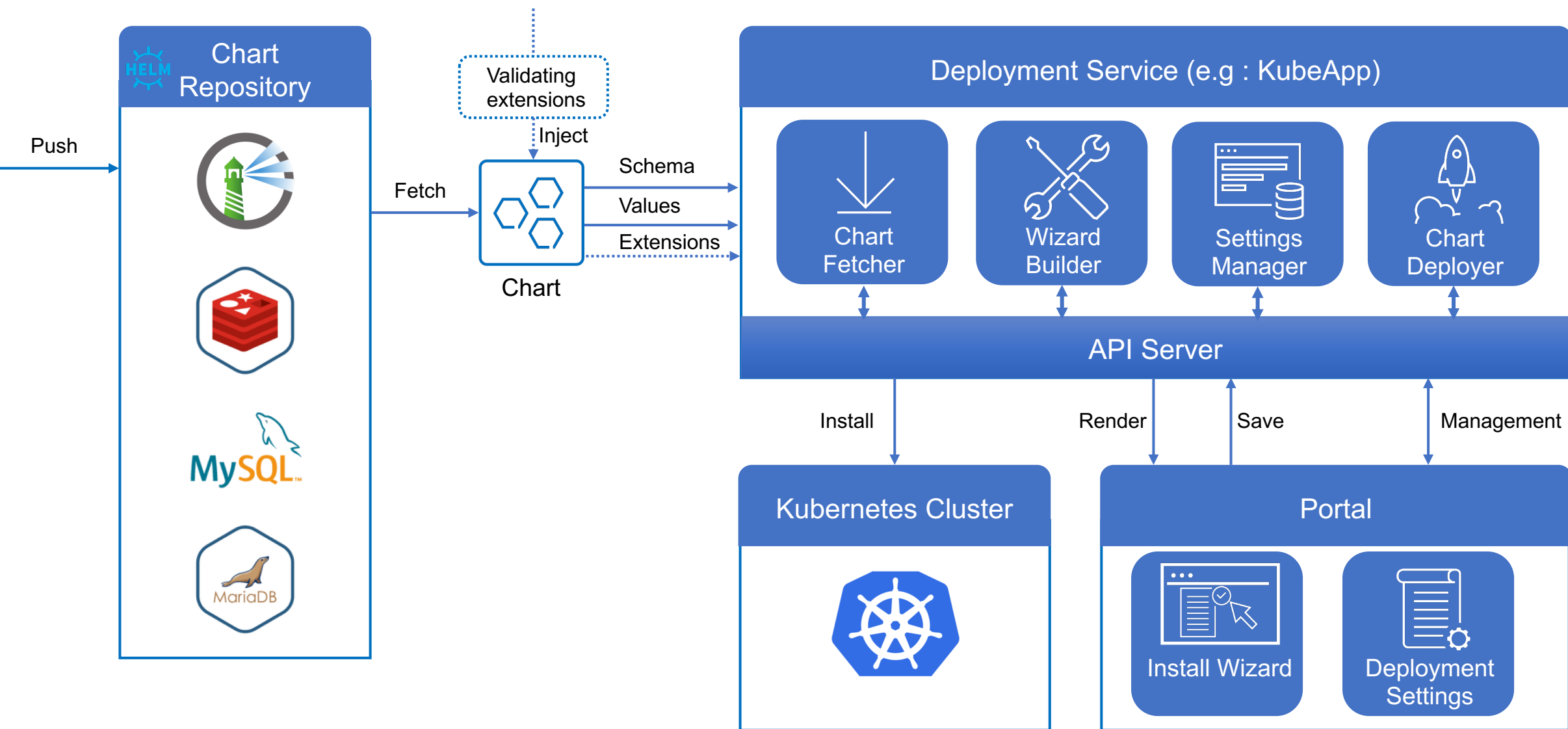


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Settings Applied via Visual Wizard



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Install kubecon/demo-2019

✓ General

✓ Global

→ Storage

Ingress

Database

Resource

Env

Storage

S3

Enabled: ☒ ON

Region:

Bucket:

Access key:

Access Secret:

Optional Settings:

Azure

Enabled: ☐ OFF

Container:

Account.name:

Account.key:

Optional Settings:

Previous

Next

Cancel

© Chart Deployer V1.0.0-build.2019

The bucket name is required

Repeatable deployment config

Visual Deployment Service

Search...

Settings

Settings 4

	Serial Number	Installing Chart
☒	201906161200	demo.goharbor.io/chartrepo/library/harbor:1
☐	201906241640	hub.helm.sh/library/redis:5.0
☐	201906231001	hub.helm.sh/library/mysql:6.0
☐	201906062310	hub.kubeapps.com/tomcat:0.2.0

Chart Deployer V1.0.0-build.2019

S3

Enabled: ☒

Region: us-east-1

Bucket: my bucket

Access key: AU876XK==01XNM+09

Access Secret: *****

Optional Settings:

Ingress

General

Global

Storage

Ingress

Database

Resource

Env

Future Work

- More discussions with related communities to get more feedback
- Deliver a prototype
- Looking for opportunity of doing collaborations with application catalog projects like KubeApp to deliver it

More Thoughts – General Deployment Framework



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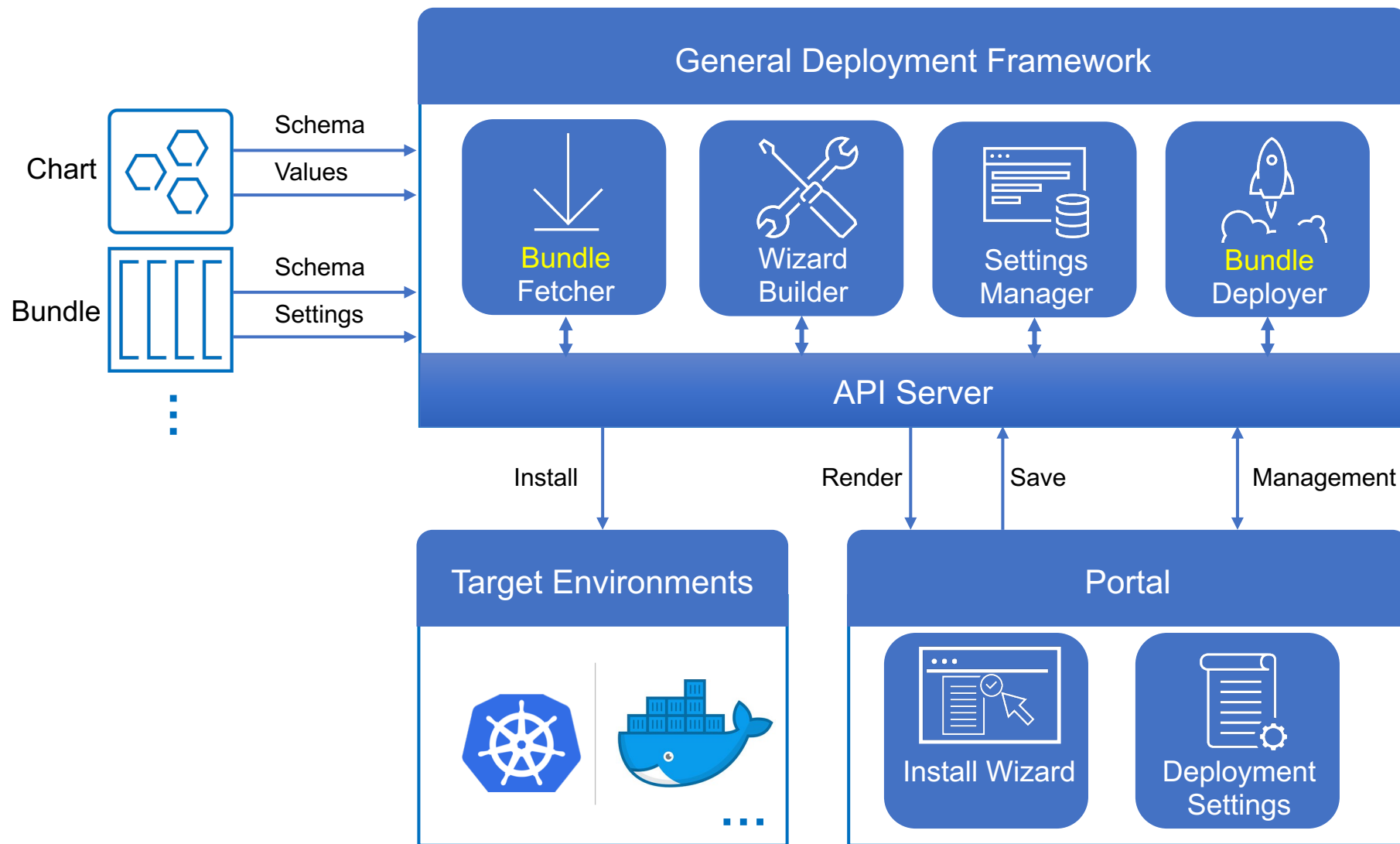


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More Thoughts – Link Settings with The Installed Artifact



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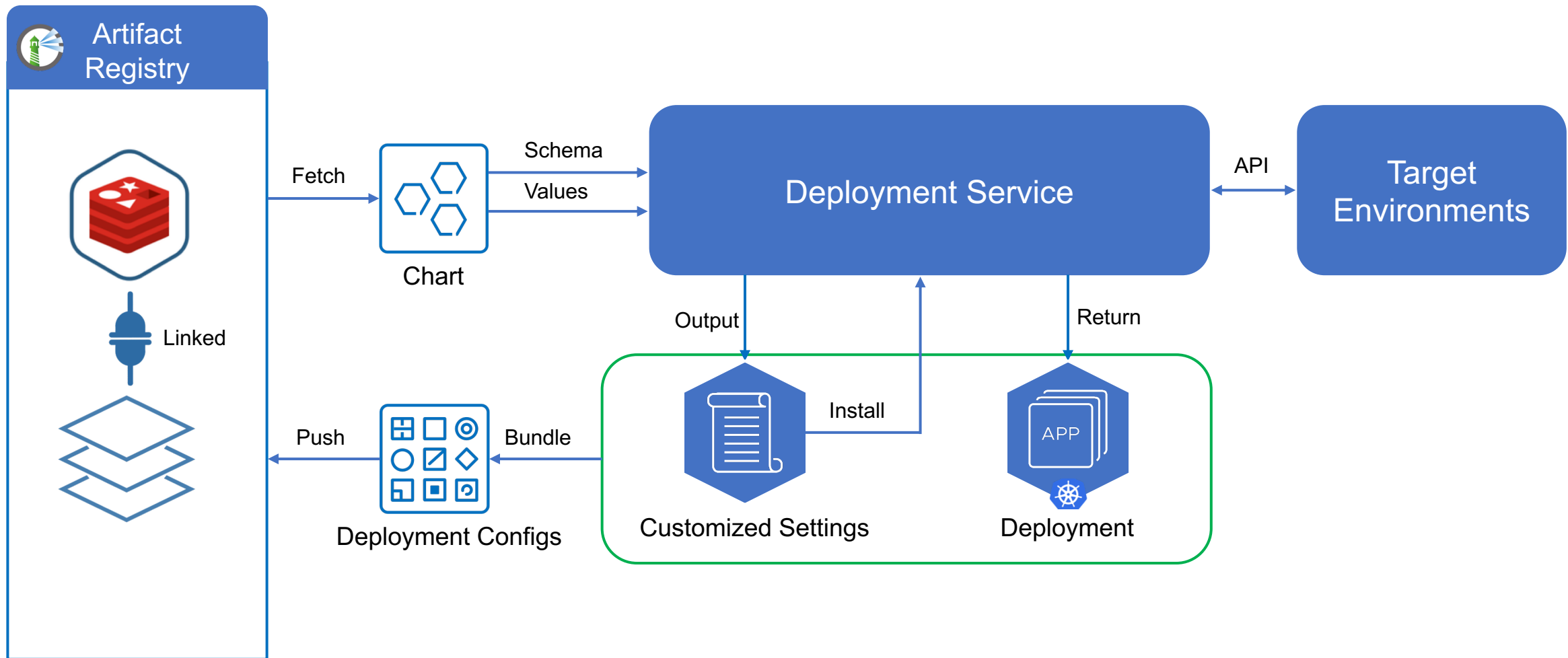


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Discussion Welcomed



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