

# Kubernetes Manual Deploy Instructions

Geared towards the “client” directory  
From the IBMCloud help screens

## Prerequisites

Download and install a few CLI tools and the IBM Kubernetes Service plug-in.

```
curl -sL https://ibm.biz/ibt-installer | bash
```

## Gain access to your cluster

1. Log in to your IBM Cloud account.

```
ibmcloud login -a https://api.ng.bluemix.net
```

If you have a federated ID, use `ibmcloud login --sso` to log in to the IBM Cloud CLI.

2. Target the IBM Cloud Container Service region in which you want to work.

```
ibmcloud cs region-set <region> // eg. us-south
```

3. Get the command to set the environment variable and download the Kubernetes configuration files.

```
ibmcloud cs cluster-config <Cluster-name> // e.g. Tony-Cluster
```

4. Set the KUBECONFIG environment variable. Copy the output from the previous command and paste it in your terminal. The command output should look similar to the following.

```
export KUBECONFIG=/Users/$USER/.bluemix/plugins/  
container-service/clusters/Tony-Cluster/kube-config-  
hou02-Tony-Cluster.yml
```

Alternatively, you may directly [download](#) your kubeconfig files to manually configure the kubernetes cluster context.

5. Verify that you can connect to your cluster by listing your worker nodes.

```
kubectl get nodes
```

It can take a few minutes for your cluster to be ready. While you wait, try [creating a registry](#)! When it's ready, you can use the Kubernetes dashboard button to access your cluster information. Need more info? [Read the docs.](#)

Other help

quota for images

ibmcloud cr quota

ibmcloud cr images

```
ibmcloud cr image-rm <image-name>
```

To build the image:

```
docker build -t react-app .
```

```
docker run -it -p 3000:3000 --rm react-app
```

```
docker run -it react-app /bin/bash
```

```
docker build -t registry.ng.bluemix.net/<namespace>/react-app .
```

IMPORTANT

```
ibmcloud cr login
```

```
docker tag react-app registry.ng.bluemix.net/  
<namespace>/<repository-namespace>/react-app:latest
```

```
docker push registry.ng.bluemix.net/<namespace>/  
<repository-namespace>/react-app:latest
```

```
ibmcloud cr images
```

```
kubectl run react-app-deployment --  
image=rregistry.ng.bluemix.net/<namespace>/<repository-  
namespace>/react-app
```

```
kubectl expose deployment.apps/react-app-deployment --
```

```
type=NodePort --port=3000 --name=react-app
```

service/react-app exposed

```
kubectl describe service react-app
```

```
Name:                react-app
Namespace:           default
Labels:              run=react-app-deployment
Annotations:         <none>
Selector:            run=react-app-deployment
Type:                NodePort
IP:                  xxx.xx.xx.xx
Port:                <unset> 3000/TCP
TargetPort:          3000/TCP
NodePort:            <unset> 30611/TCP
Endpoints:
Session Affinity:    None
External Traffic Policy: Cluster
Events:              <none>
```

```
ibmcloud cs workers <cluster-name> //e.g Tony-Cluster
```

			Public IP	Private IP
Machine Type	State	Status	Zone	Version
kube-hou02-paxxxxxxx-w1			xxx.xxx.xxx.xx	xx.xx.xx.xx
free	normal	Ready	hou02	x.xx.xx_xx*

\* To update to 1.10.12\_1543 version, run 'ibmcloud ks

worker-update'. Review and make any required version changes before you update: [https://console.bluemix.net/docs/containers/cs\\_cluster\\_update.html#worker\\_node](https://console.bluemix.net/docs/containers/cs_cluster_update.html#worker_node)