



Document Title: JCP Runbook  
Effective Date – 11-July-2022  
Version Number: 1.6

# Janssen Care Path Runbook

## 1. APPLICATION DEPLOYMENT

GBS team will provide the release artifacts for the production environment which must contain image name and tag information, for example v4-covance-10.

PRE REQUISITE :

1. Login to the Kubernetes clusters (<https://cloud.ibm.com/kubernetes/clusters>).
2. Make sure “All Resources” is selected for the Resource Group, and “All Locations” is selected for Location dropdown.
3. Click on the production-1 cluster

Name	State	Location	Worker Count
production-2	Normal	Washington D.C.	4
production-1	Normal	Dallas	4

4. Verify worker nodes, CPU usage and memory usage are on healthy condition.
5. Similarly select production-2 cluster on above step#3 and make sure the cluster is healthy for new deployment.



Both production-1 and production-2 clusters should be healthy for code deployment. In case any issue, fix the problem before moving to the next step.

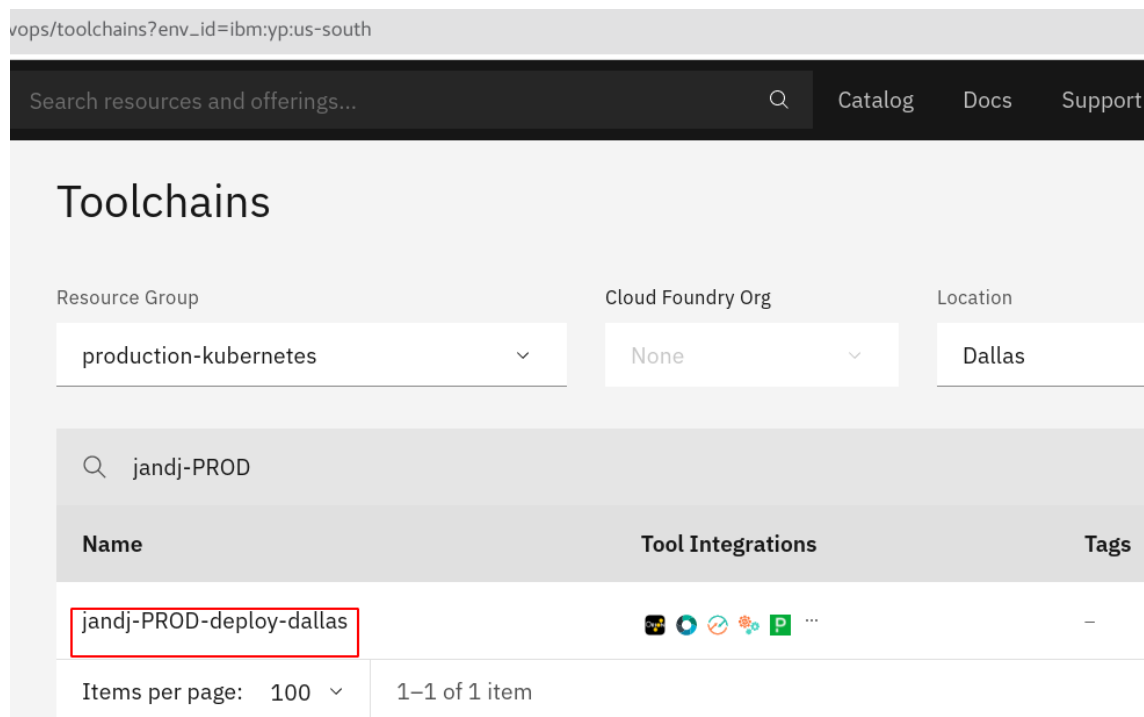
## DEPLOY APPLICATION

Production environment has production-1 and production-2 Kubernetes clusters, and each cluster has its own Toolchain setup to deploy the code. Refer below table for the cluster and respective toolchain.

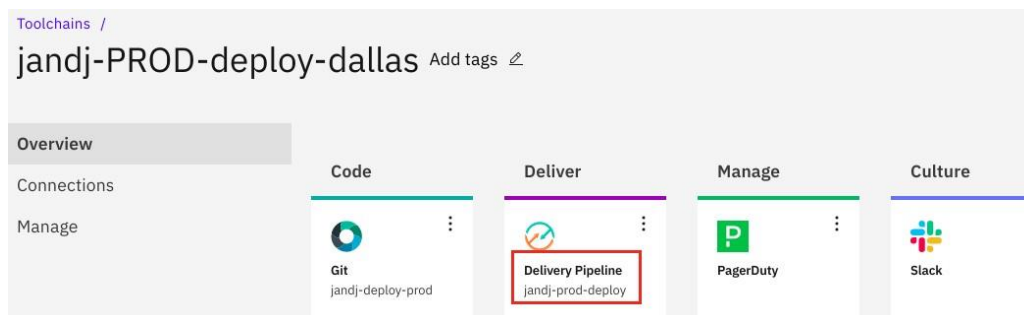
Toolchain Name	Cluster	Resource Group	Location
jandj-PROD-deploy-dallas	production-1	production-kubernetes	Dallas
jandj-PROD-deploy-wdc	production-2		Washington DC

### 1. Deploy production-1 Cluster:

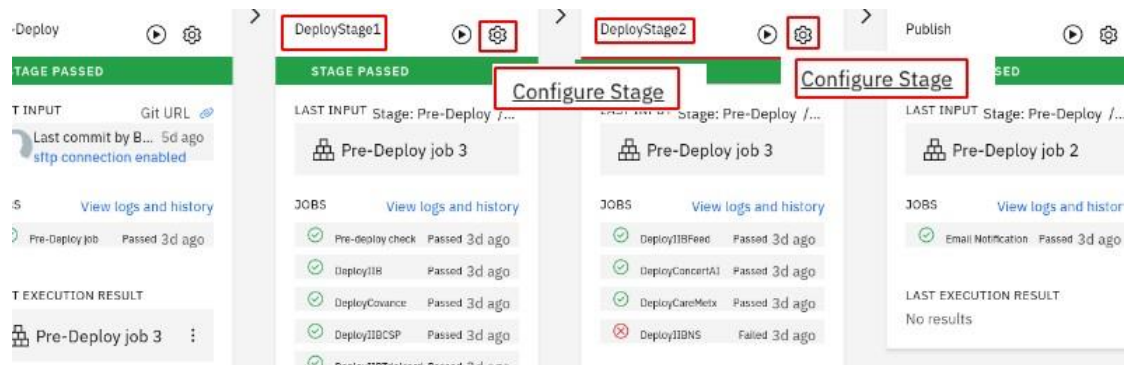
i. Open the URL [https://cloud.ibm.com/devops/toolchains?env\\_id=ibm:yp:us-south](https://cloud.ibm.com/devops/toolchains?env_id=ibm:yp:us-south) in a web browser and select the location “Dallas” and resource group as “production-Kubernetes”. Click the toolchain name: **jandj-PROD-deploy-dallas**.



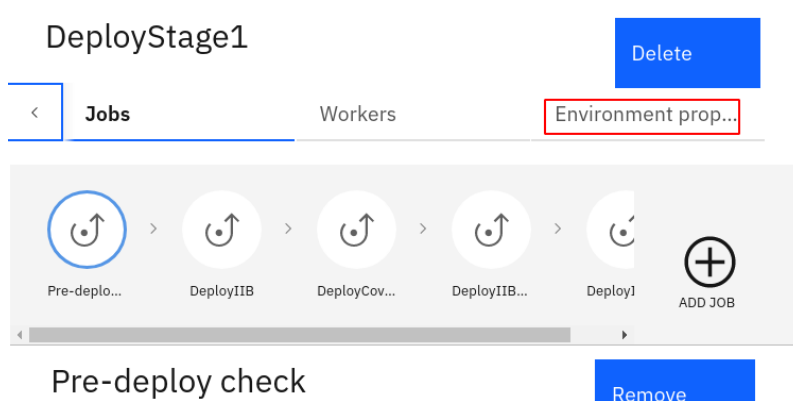
### ii. Click on the “Delivery Pipeline”.



iii. Click on the “Stage Configuration” button and select “Configure Stage” option.  
Applications are grouped with multiple stages, like DeployStage1, DeployStage2 etc.



iv. Click on the “Environment Properties” tab. This step is required for all deploymentstages, like DeployStage1, DeployStage2 etc.



v. GBS team will provide the image tag(s). Type NA, if any image tag is not provided which indicates that image deployment is not required. Make sure all image tags are either marked as NA or specific build number which is provided by the GBS team.

Example:

IIB_IMAGE_TAG	- v4-jcp-975
IIB_CSP_IMAGE_TAG	- v4-iibcsp-133
IIB_TRIALCARD_IMAGE_TAG	- v4-iibtbc-71
IIB_CONCERTAI_IMAGE_TAG	- v4-concertai-56
IIB_CAREMETX_IMAGE_TAG	- v4-caremetx-42
IIB_FEED_IMAGE_TAG	- v4-iibfeed-117
IIB_NS_IMAGE_TAG	- v4-iibns-128



This is an important step. Make sure the tag names are typed correctly. Wrong or empty tag name will jeopardize the environment.

Add property +

buildprops	build.properties
gitApiKey	.....
IBM_CLOUD_API_KEY	.....
SENDGRID_API_KEY	.....
COMMONS_BRANCH	master
ZONE1	dal10
ZONE2	dal12
ZONE1_LABEL	zone1prod
ZONE2_LABEL	zone2prod
ENV	prod
IIB_IMAGE_TAG	v4-jcp-869
COVANCE_IMAGE_TAG	v4-covance-208
IIB_CSP_IMAGE_TAG	v4-iibcsp-118
IIB_TRIALCARD_IMA...	v4-iibtc-27

Click on the “Save” button.

vi. Look for the “Pre-Deploy” stage and click on the “Run Stage” button.

The deployment process will start on the production-1 cluster. Other stages (DeployStage1, DeployStage2, Publish) will be executed automatically





## 2. Deploy production-2 Cluster

i. Open the URL [https://cloud.ibm.com/devops/toolchains?env\\_id=ibm:yp:us-east](https://cloud.ibm.com/devops/toolchains?env_id=ibm:yp:us-east) in a web browser and select the location “Washington DC” and resource group as “production- kubernetes”. Click the toolchain name: **JandJ-PROD-deploy-wdc**.

## Toolchains

Resource Group: production-kubernetes Location: Washington DC

Search: jandj-PROD

Name	Tool Integrations
<span>jandj-PROD-deploy-wdc</span>	   

Items per page: 100 1–1 of 1 item





ii. Click on the “Delivery Pipeline”.

jandj-PROD-deploy-wdc Add tags

Overview

Connections

Manage

Code	Deliver	Manage	Culture
 GitLab jandj-deploy-prod	 <span>Delivery Pipeline</span> jandj-prod-deploy-...	 PagerDuty	 Slack

iii. Click on the “Stage Configuration” button and select “Configure Stage” option.

Applications are grouped with multiple stages, like DeployStage1, DeployStage2 etc.

Deploy

DeployStage1 DeployStage2 Publish

Configure Stage Configure Stage

LAST INPUT Stage: Pre-Deploy /...

Pre-Deploy job 3

JOBS View logs and history

Pre-deploy check Passed 3d ago

DeployIIB Passed 3d ago

DeployCovance Passed 3d ago

DeployIIBCSF Passed 3d ago

DeployIIBCSF Passed 3d ago

DeployIIBCSF Failed 3d ago

LAST EXECUTION RESULT

No results

iv. Click on the “Environment Properties” tab. This step is required for all deploymentstages, like DeployStage1, DeployStage2 etc.

DeployStage1

Jobs Workers Environment prop...

Pre-deplo... DeployIIB DeployCov... DeployIIB... DeployI ADD JOB

Pre-deploy check

Remove

v. GBS team will provide the image tag(s). Type NA, if any image tag is not provided which indicates that image deployment is not required. Make sure all image tags are either marked as NA or specific build number which is provided by the GBS team.

Example:

IIB_IMAGE_TAG	- v4-jcp-975
IIB_CSP_IMAGE_TAG	- v4-iibcsp-133
IIB_TRIALCARD_IMAGE_TAG	- v4-iibtc-71
IIB_CONCERTAI_IMAGE_TAG	- v4-concertai-56
IIB_CAREMETX_IMAGE_TAG	- v4-caremetx-42
IIB_FEED_IMAGE_TAG	- v4-iibfeed-117
IIB_NS_IMAGE_TAG	- v4-iibns-128

< Jobs Workers **Environment pro...**

Add property ⊕

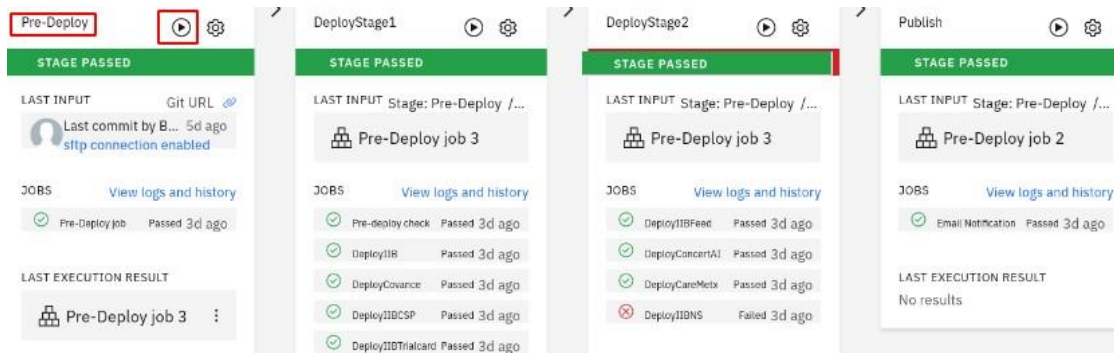
buildprops	build.properties
gitApiKey	..... 🔑
IBM_CLOUD_API_KEY	..... 🔑
SENDGRID_API_KEY	..... 🔑
COMMONS_BRANCH	master
ZONE1	dal10
ZONE2	dal12
ZONE1_LABEL	zone1prod
ZONE2_LABEL	zone2prod
ENV	prod
IIB_IMAGE_TAG	v4-jcp-869
COVANCE_IMAGE_TAG	v4-covance-208
IIB_CSP_IMAGE_TAG	v4-iibcsp-118
IIB_TRIALCARD_IMA...	v4-iibtc-27

Click on the “Save” button.

vi. Look for the “Pre-Deploy” stage and click on the “Run Stage” button.



This is an important step. Make sure the tag names are typed correctly. Wrong or empty tag name will jeopardize the environment.



The deployment process will start on the production-2 cluster. Other stages (DeployStage1, DeployStage2, Publish) will be executed automatically.

Verify Pods: production-1 and production-2

List the pod for both the clusters and make sure all pods are in running status and age should be few minutes ago.

How to Access production 1:

1. Log in to your IBM Cloud account

```
ibmcloud login -a cloud.ibm.com -r us-south -g production-kubernetes --sso
```

2. Set the Kubernetes context to your cluster for this terminal session

```
ibmcloud ks cluster config --cluster production-1
```

3. getting pods

```
kubectl get pods -n prod
```

4.release number

```
kubectl exec jcp-covance-prod-dal12-6bccb6db97-9v1kd -n prod cat /home/aceuser/buildpkg/BARs/build_number.txt
```

5.Api status

```
kubectl exec jcp-covance-prod-dal12-6bccb6db97-9v1kd -n prod /home/aceuser/verifyenv.sh apiStatus
```

How to Access production 2:

1. Log in to your IBM Cloud account

```
ibmcloud login -a cloud.ibm.com -r us-south -g production-kubernetes --sso
```

2. Set the Kubernetes context to your cluster for this terminal session  
ibmcloud ks cluster config --cluster production-2

3. getting pods  
kubectll get pods -n prod

4.release number  
kubectll exec jcp-covance-prod-dal12-6bccb6db97-9vld -n prod cat  
/home/aceuser/buildpkg/BARS/build\_number.txt

5.Api status  
kubectll exec jcp-covance-prod-dal12-6bccb6db97-9vld -n prod /home/aceuser/verifyenv.sh apiStatus

Note:

1)Each zone should have multiple pods for iib and another pod for Covance application. production-1 has dal10 and dal12 zones, whereas production-2 has wdc04 and wdc06 zones.Example:

```
C:\Users\000Z9H744>kubectll get pods -n prod
```

NAME	READY	STATUS	RESTARTS	AGE
filebeat-dal10-7b9774c65-5vgd9	1/1	Running	1 (25d ago)	32d
filebeat-dal12-79c8d7d485-4wlfk	1/1	Running	1 (25d ago)	32d
jcp-iib-prod-dal10-58484c5bb9-7p4rm	1/1	Running	0	11d
jcp-iib-prod-dal12-df677d678-577qk	1/1	Running	0	47h
jcp-trialcard-pdf-prod-dal10-69c7b94644-z2xkp	1/1	Running	1 (25d ago)	32d
jcp-trialcard-pdf-prod-dal12-7555bd577-t49k1	1/1	Running	1 (25d ago)	32d
jcpiib-caremetx-prod-dal10-5d8dc9fb-wrqzj	1/1	Running	0	11d
jcpiib-caremetx-prod-dal12-d999fc6f9-rc15l	1/1	Running	0	11d
jcpiib-concertai-prod-dal10-7768bd599-sbcw6	1/1	Running	0	11d
jcpiib-concertai-prod-dal12-755bb9bb64-q9p45	1/1	Running	0	47h
jcpiib-csp-prod-dal10-7bf4f784c4-rlk9g	1/1	Running	0	6d
jcpiib-csp-prod-dal12-84857d5b9-mhmd9	1/1	Running	0	6d
jcpiib-feed-prod-dal10-ddf58dc67-57s2p	1/1	Running	0	53m
jcpiib-feed-prod-dal12-5c47fc5488-jfmpg	1/1	Running	0	53m
jcpiib-ns-prod-dal10-6d4d498b9-bcw2w	1/1	Running	0	14m
jcpiib-ns-prod-dal12-6fd8496f8-zzjdv	1/1	Running	0	14m
jcpiib-trialcard-prod-dal10-864ffd6c46-t8jn7	1/1	Running	0	11d
jcpiib-trialcard-prod-dal12-6d7c6d865c-97gtw	1/1	Running	0	47h



```
C:\Users\000Z9H744>
C:\Users\000Z9H744>kubectl get pods -n prod
```

NAME	READY	STATUS	RESTARTS	AGE
filebeat-wdc04-5f6f9d6b4f-4rwl1	1/1	Running	1 (13d ago)	18d
filebeat-wdc06-5c894bb5d9-1lvbz	1/1	Running	0	18d
jcp-iib-prod-wdc04-9d798c4cb-vxdjd	1/1	Running	0	11d
jcp-iib-prod-wdc06-bb46f9c9-n9ktq	1/1	Running	0	4d20h
jcp-trialcard-pdf-prod-wdc04-57d874f488-2hw5j	1/1	Running	1 (13d ago)	18d
jcp-trialcard-pdf-prod-wdc06-765847d4b9-fv69m	1/1	Running	0	18d
jcpiib-caremetx-prod-wdc04-7bb66fb5f-wjhr8	1/1	Running	0	45h
jcpiib-caremetx-prod-wdc06-786bfd4b4-9cmbq	1/1	Running	0	4d20h
jcpiib-concertai-prod-wdc04-65f569c6c8-vjknm	1/1	Running	0	45h
jcpiib-concertai-prod-wdc06-66b57bb4f7-8fwpp	1/1	Running	0	4d20h
jcpiib-csp-prod-wdc04-85cd464d9-m6845	1/1	Running	0	6d
jcpiib-csp-prod-wdc06-6757489b86-vv6xx	1/1	Running	0	6d
jcpiib-feed-prod-wdc04-5698689bbb-7rs8m	1/1	Running	0	35m
jcpiib-feed-prod-wdc06-5dfbbccb97-dzs65	1/1	Running	0	35m
jcpiib-ns-prod-wdc04-bdd54d478-rrl4v	1/1	Running	0	15m
jcpiib-ns-prod-wdc06-75f655d8b9-kd524	1/1	Running	0	15m
jcpiib-trialcard-prod-wdc04-f77bf7fd5-wb65x	1/1	Running	0	11d
jcpiib-trialcard-prod-wdc06-5f7cd8db-dxg5d	1/1	Running	0	4d20h

2)If any pod's state is "Container creating", then wait for 5 minutes and rerun above commands. In case any other status identified, then it should be investigated.

3)Pods are created when the deployment starts, and pod's age should not be more than few minutes. If it is showing more than 25 minutes, then follow the steps to [refresh the pods](#) and verify the age pods.

Verify Release Number: production-1 and production-2

Run below commands and replace user specific kubeconfig (\$PRD1, \$PRD2) and pod-name which are changed.

```
$ kubectl exec jcp-covance-prod-dal12-6bccb6db97-9v1kd -n prod cat
/home/aceuser/buildpkg/BARS/build_number.txt
```

```
$ kubectl exec jcp-covance-prod-dal12-6bccb6db97-9v1kd -n prod cat
/home/aceuser/buildpkg/BARS/build_number.txt
```

Verify the release version which should be same as the image build number supplied, for example "v4-iibfeed-117".

```
C:\Users\000Z9H744>kubectl exec jcpiib-feed-prod-dal10-ddf58dc67-57s2p -n prod cat /home/aceuser/buildpkg/BARS/build_number.txt
kubectl exec [POD] [COMMAND] is DEPRECATED and will be removed in a future version. Use kubectl exec [POD] -- [COMMAND] instead.
Defaulted container "jcpiib-feed" out of: jcpiib-feed, pvcpermissionfix (init)
v4-iibfeed-117

C:\Users\000Z9H744>kubectl exec jcpiib-feed-prod-dal12-5c47fc5488-jfmpg -n prod cat /home/aceuser/buildpkg/BARS/build_number.txt
kubectl exec [POD] [COMMAND] is DEPRECATED and will be removed in a future version. Use kubectl exec [POD] -- [COMMAND] instead.
Defaulted container "jcpiib-feed" out of: jcpiib-feed, pvcpermissionfix (init)
v4-iibfeed-117
```

Verify API Status: production-1 and production-2

Verify whether integration node and APIs are running or not. Execute following command by replacing user specific kubeconfig (\$PRD1, \$PRD2) and pod-name which are changed.

```
$ kubectl exec jcp-covance-prod-dall2-6bccb6db97-9v1kd -n prod
/home/aceuser/verifyenv.sh apiStatus
```

```
$ kubectl exec jcp-covance-prod-dall2-6bccb6db97-9v1kd -n prod
/home/aceuser/verifyenv.sh apiStatus
```

Refer below output where all APIs are running, but investigation is required for other messages like node is not reachable, or API(s) is/are down.

```
C:\Users\000Z9H744>kubectl exec jcpib-feed-prod-dal10-ddf58dc67-57s2p -n prod /home/aceuser/verifyenv.sh apiStatus
kubectl exec [POD] [COMMAND] is DEPRECATED and will be removed in a future version. Use kubectl exec [POD] -- [COMMAND] instead.
Defaulted container "jcpib-feed" out of: jcpib-feed, pvcpermissionfix (init)
mqsiprofile repetition disallowed

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
CAREPATHONENODE: All APIs are running

CAREPATHCOMMONNODE: All APIs are running
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

C:\Users\000Z9H744>kubectl exec jcpib-feed-prod-dal12-5c47fc5488-jfmpg -n prod /home/aceuser/verifyenv.sh apiStatus
kubectl exec [POD] [COMMAND] is DEPRECATED and will be removed in a future version. Use kubectl exec [POD] -- [COMMAND] instead.
Defaulted container "jcpib-feed" out of: jcpib-feed, pvcpermissionfix (init)
mqsiprofile repetition disallowed

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
CAREPATHONENODE: All APIs are running

CAREPATHCOMMONNODE: All APIs are running
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

## NOTIFY AFTER DEPLOYMENT

Refer below template to inform the GBS team once the deployment and verification are completed.

**To:** carepath iib dl@wwpdl.vnet.ibm.com

CC:

paranjan@in.ibm.com, prodipro@in.ibm.com, rakhahari.pramanik@in.ibm.com,  
bhubanpadhan@in.ibm.com

**Subject:** PRODUCTION: <(Successful/Failed)>: Deployment: <Version>

**Body:** <Brief Description of deployment activities and results>

Please include screenshot of following sections from the runbook

- 5.4.1 Review Log: production-1 and production-2
- 5.4.2 Verify Pods: production-1 and production-2
- 5.4.3 Verify Release Number: production-1 and production-2
- 5.4.4 Verify API Status: production-1 and production-2

## APPLICATION ROLLBACK

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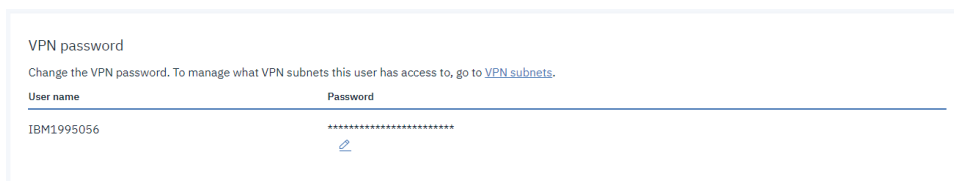
In case the requirement is to roll back to the previous deployment, then identify the previously deployed build number (coordinate with GBS team).

Follow the steps mentioned on the [deploy application](#), [verify deployment](#) and [notify after deployment section](#).

### 15.1.1 Set VPN Password

To update the VPN password:

- From the IBM Cloud menu bar, click **Manage > Access (IAM)**, and select **Users**.
- Select your user from the list.
- From the User details view, go to the **VPN password** section.



- Click the **Edit** icon to enter a new VPN password.
- Click **Apply** to save your changes.

### 15.1.2 Login to VPN

Now that the VPN access is configured, you can log in using your browser.

- Open your web browser and click on either dal10, dal12, wdc04 or wdc06 from the [availableVPN endpoints](#).
- Supported operating systems and browser pairs are as follows:
  - Vista/Win7/Win8/Win2003/Win2008: Chrome, 360SE, MSIE, Firefox
  - Linux: Chrome, Firefox
  - MacOS: Safari, Chrome
- When prompted, enter the VPN login credentials that you configured in [Setting the VPNpassword](#).

### 15.1.3 Update Hosts File to Run KubectI Command

Edit the hosts file

Windows file path: C:\Windows\System32\Drivers\etc\hosts

Linux: /etc/hosts

Mac: /private/etc/hosts

add following entry and save the file.

```
#non-prod-cluster
10.93.93.50 c108.private.us-
south.containers.cloud.ibm.com#production-1 cluster
```

10.93.59.213 c112.private.us-  
south.containers.cloud.ibm.com#production-2 cluster  
10.213.31.59 c1.private.us-east.containers.cloud.ibm.com

For any issues :

**1.Surojit Sannamoth (ssannamo@in.ibm.com)**

**2. Prosanta Saha( prsaha11@in.ibm.com)**

