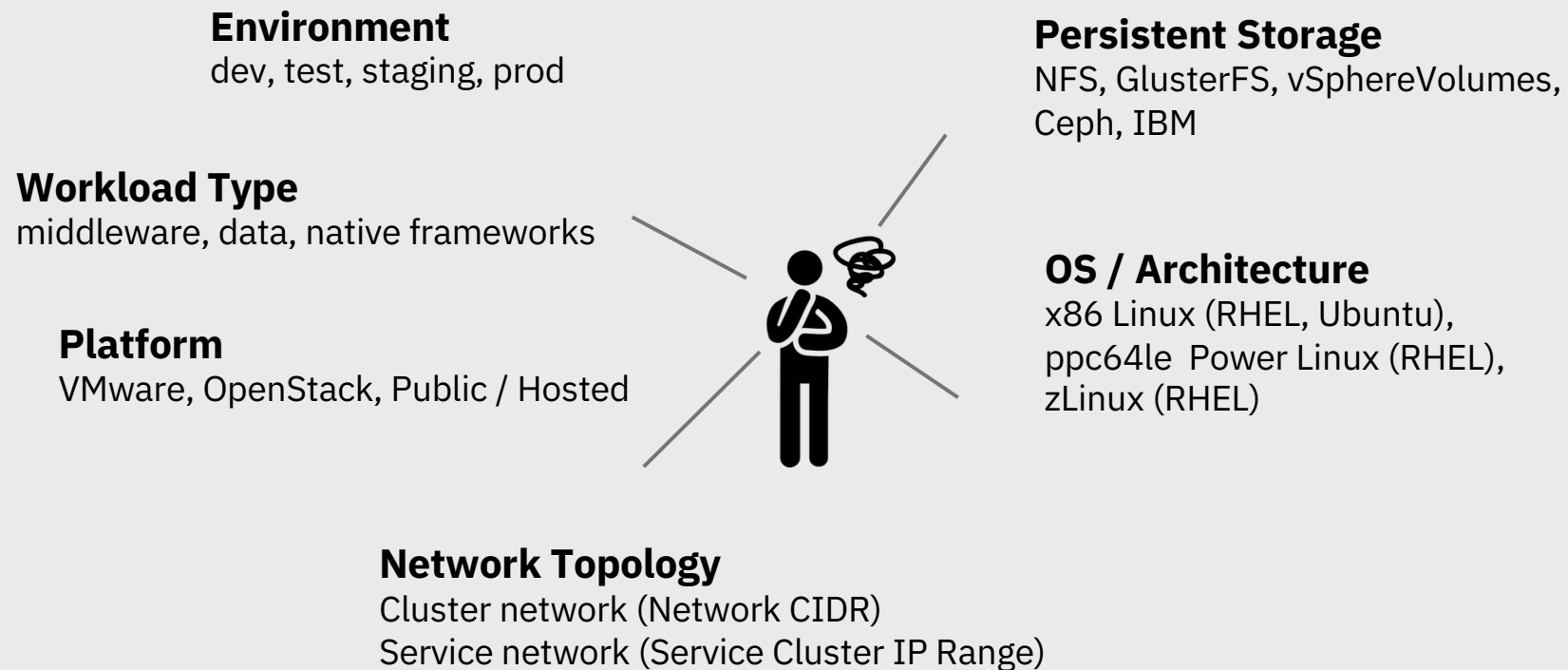


IBM Cloud Private Installation



Things to consider prior to installation



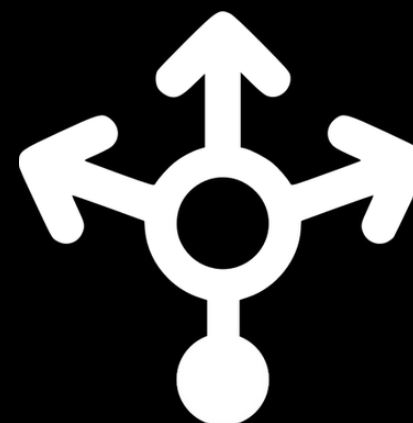
Load balancers and proxies

Master node load balancer

Proxy node load balancer

Ingress server

Installing ICP with an Internet proxy in front of it has special considerations



“Air gap” installation considerations

Boot node serves as a bridge/jump server

- Boot node has access to Internet
- Boot node has access to all ICP cluster machines

ICP private docker registry

ICP private Helm repository

Will build pipeline have access to public dockerhub.com?

Will ICP have access to the IBM Helm chart repository?

Performing an offline installation on Medium:

<https://medium.com/ibm-cloud/ibm-cloud-private-offline-installation-eb730ae13bfc>



Review system requirements (See the Knowledge Center)

Hardware requirements

The Knowledge Center provides minimum requirements. CASE has some recommendations <https://github.com/ibm-cloud-architecture/ibm-cloud-architecture/blob/master/Sizing.md>

Supported operating systems

Docker considerations

Highly recommended to use the IBM provided Docker distribution

Prepare your nodes

Check connectivity

Verify key ports are open and free from use

Configure DNS or /etc/hosts

Configure according to Knowledge Center and include all hosts in the cluster

Additional considerations

python, NTP, SSH, socat

IBM Cloud Private Community Edition

Single or multi-node cluster for testing purposes only

No charge and not upgradeable to paid-for versions

Not available features: High Availability, CF, CAM, and VA

IBM Cloud Private Cloud Native

Single or multi-node cluster production environment

Selection of bundled components

Ability to add extra components

IBM Cloud Private Enterprise Edition

Single or multi-node cluster production environment

Includes all ICP available Cloud Native bundled components plus extras

Customizable with extra components

Prepare the boot node

Extract images and load into Docker

Extract from the installer images

Configure SSH to all cluster nodes

Move install images into `/cluster/images`

Customize the cluster

General settings

Kubernetes options

Log settings

Network options

Docker config

Proxy & Master HA settings

User settings

Cloud provider setting

Network encryption

Environment Isolation

Configure for HA

Deploy the Cluster

Snapshot your nodes

Docker run the deployment

Use `-vvv` for verbose output

Use `tee` to store results

Verify the results and see troubleshooting upon failure:

https://www.ibm.com/support/knowledgecenter/SSBS6K_3.1.0/troubleshoot/troubleshoot.html

Check UI, status of pods (ready), status of nodes, installation log

Post Installation

Install kubectl, Helm CLI and ICP CLI

Install a sample application:

- Blue Compute (comprehensive microservices application)
- Kube Toy (fun Hello-World)
- Bookinfo

Install add-on charts such as Istio

