# REMOVING A NODE/REINSTALLING FOR OCP-IPI

OPENSHIFT 4.X INSTALLER PROVISIONED BARE METAL NODE MAINT ACTIVITY.

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# STARTING POINT

- Assuming you have a installed cluster, and we are doing maint on a worker node.
- Maint includes:
  - Installing a nic
  - Changing PSU or other hardware component
  - Recabling
  - Node is having difficulties:
    - Disk Failure / Memory Failure etc

# MACHINE LIFE CYCLE IN IPI

- Machines are “Kubernetes” objects, and the cluster wants to manage it and recover it.
- If you don’t do it properly, kube/ironic will “fight” for control.
- Best practice:
  - Drain the node
  - Make it unschedulable
  - Shut it down

## THINGS TO WORRY ABOUT:

- Make sure time (bios/hw) level does not get out of sync with reality. This will cause significant problems.
- Best to treat the node as “cattle”, and re-install/rejoin the worker.

# HOW TO:

- Get a list of machine:
  - oc get machine -n openshift-machine-api
- Delete the machine:
  - oc delete machine <machine> -n openshift-machine-api

# WHAT HAPPENS WHEN WE DELETE THE MACHINE

- By default, the machine controller tries to drain the node that is backed by the machine until it succeeds. In some situations, such as with a misconfigured Pod disruption budget, the drain operation might not be able to succeed in preventing the machine from being deleted. You can skip draining the node by annotating "machine.openshift.io/exclude-node-draining" in a specific machine. If the machine being deleted belongs to a MachineSet, a new machine is immediately created to satisfy the specified number of replicas.

# REFERENCES


- https://source.redhat.com/communitiesatredhat/applications/containers-paas-community/container_community_of_practice_wiki/openshift_baremetal_ipi_45
- https://source.redhat.com/personal_blogs/how_to_replace_all_masters_in_an_openshift_ipi_cluster