

**DataRobot**

# **AWS Marketplace Single Node Provisioner for Platform Installation**

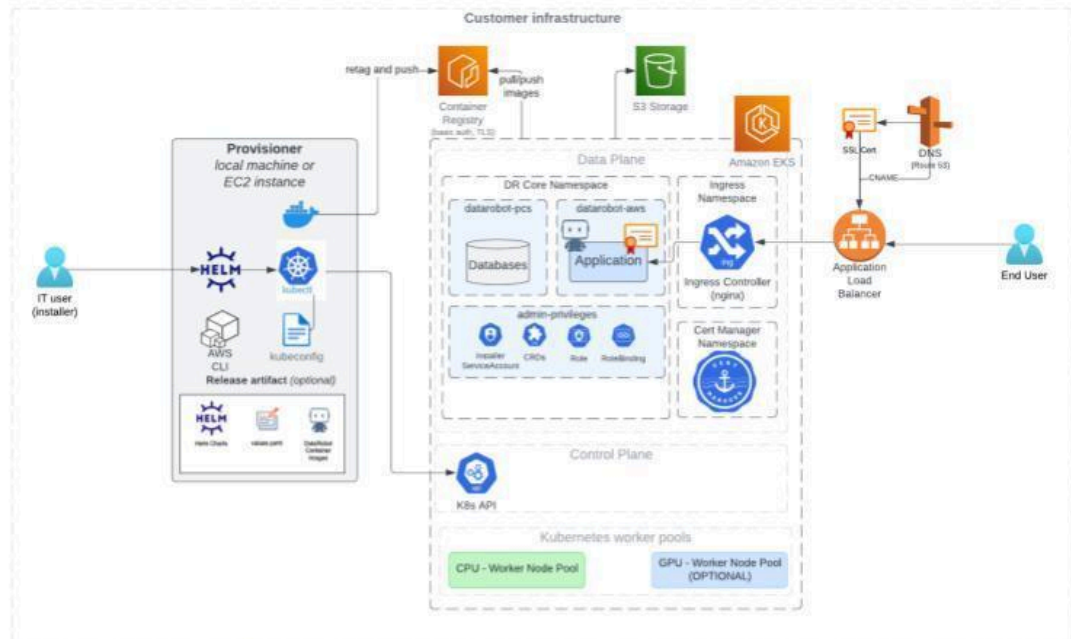
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## **Summary**

*DataRobot Platform 10 installation for AWS marketplace*

Please reach out to [support@datarobot.com](mailto:support@datarobot.com) to start your cluster installation

# Deployment Architecture EKS



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## License and Documentation.

This AWS Marketplace offering is a bring your own License. Installation and Configuration guide is provided with your license as part of Evidence of Delivery of the DataRobot subscription.

## Infrastructure Planning

The DataRobot Enterprise deployment team will create a custom installation plan based on your subscription. This custom sizing will use an AWS Elastic Kubernetes Service (EKS) cluster for your Kubernetes platform core. Persistent Critical Services (PCS) will be defined for your data

services, S3 for longer term solutions as well as requirements for the computational services. Ingress and user authorizations will be addressed.

## EKS Configuration

DataRobot needs to be installed to a Kubernetes cluster. EKS Exists in C2S for Install. DataRobot is working on automation with terraform and cloud formation to assist this in future versions. Until such time the EKS CLuser will need to be set up manually by local administrators.

For additional information please refer to the installation and configuration guide found on the provisioner.

\*\* Note: DataRobot can be installed to other Kubernetes Ecosystems if they are CNCF Complaint. This guide will not cover those cluster configurations, please reach out to DataRobot if install Kubernetes is not EKS

## EKS Cluster Dependencies

1. EKS with 4 16xLarge Worker nodes
2. A service account that can mount volumes
3. Cluster auto scaler running if autoscaling is desired can be found in EKS setup stage, this will also require a service account.
4. AWS IRSA running on cluster so pods can assume Service account role to mount volumes
5. Cluster API available from provisioner AMI - Deployment node.
6. CoreDNS or Equivalent Kubernetes DNS
7. Kubernetes Networking for Services and Pods (kube-proxy and Amazon VPC CNI)
8. Amazon EKS Pod Identity Agent
9. Network and security group access between ICMP Install node K8s cluster
10. ECR or Equivalent Private Image Repository

This must be a read/write registry (AMI roles access required) for the K8 nodes to pull images from.

11. Cert Manager
12. Networking and Security groups between the provisioner and EKS nodes
13. Networking and Security groups between ECR and EKS nodes
14. Load balancer for ingress and egress.

DataRobot is accessed by a web browser, if a URL served by JWICS DNS is desired this should be set up beforehand. The URL should point to a load balancer that will be configured to point to all the EKS Workers, DataRobot will just need 80 and 443 passthrough to Worker nodes ports.

15. Configure local repository for external packages

## Installation of Platform

The DataRobot deployment team will work with you to guide you through the installation and configuration of the EKS cluster. This AMI is a complete software kit to set up your environment.

Edit your configuration files with your local environment information:

CONFIG

CONFIG.aws

- Install commands (in order):

* check binaries	- check locally installed required binaries
* extract	- extract containers from tarballs
* load-images	- load containers to local docker
* push-images registry	- push local docker images to registry
* cluster cluster	- create EKS/AKS/GKE kubernetes cluster
* eks-gp3 class to gp3	- create and set default storage class to gp3
* ingress	- create nginx ingress-controller
* dns	- create DNS record for DR domain
* namespace	- create datarobot namespace
* iam	- configure permissions
* autoscale	- DR cluster autoscaling
* configure	- create pcs and dr helm charts
* pcs-install	- helm apply existing pcs.yaml
* dr-install datarobot-values.yaml	- helm apply existing datarobot-values.yaml

example

```
cd datarobot/10.1.0
```

```
./dr-inst check
```

```
./dr-inst extract
```