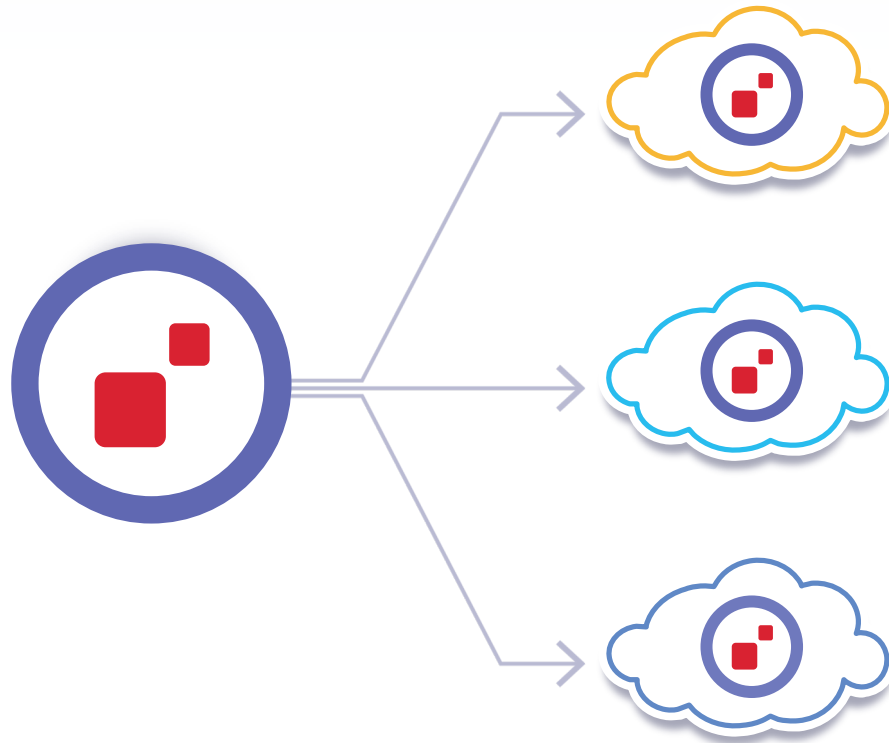


# MarkLogic in the Cloud Workshop

Unit 1 – Deployment of a Cluster



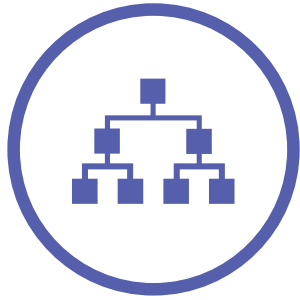
## MARKLOGIC CLUSTER

# Deployment on AWS

- Parameterized deployment
- Fully managed cluster
- Using CloudFormation templates

## MARKLOGIC CLUSTER

# Deployment Choice



## Virtual Private Cloud

Create a new VPC or deploy to an existing VPC.



## Available Zones / Cluster Size

Multiple Availability Zone and multiple nodes per zone.



## Licensing Option

Developer, Pay-as-You-Go or Bring-Your-Own-License (BYOL)

## MARKLOGIC CLUSTER

# We will use...



Amazon EC2



instance



Internet  
gateway



AMI



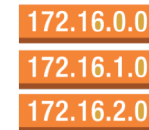
Amazon VPC



router



Amazon  
Lambda



route table



Elastic Load  
Balancing



Auto Scaling



elastic network  
instance



Amazon S3



bucket



Amazon EBS



DynamoDB



table



CloudWatch



alarm



IAM



AWS  
CloudFormation



template



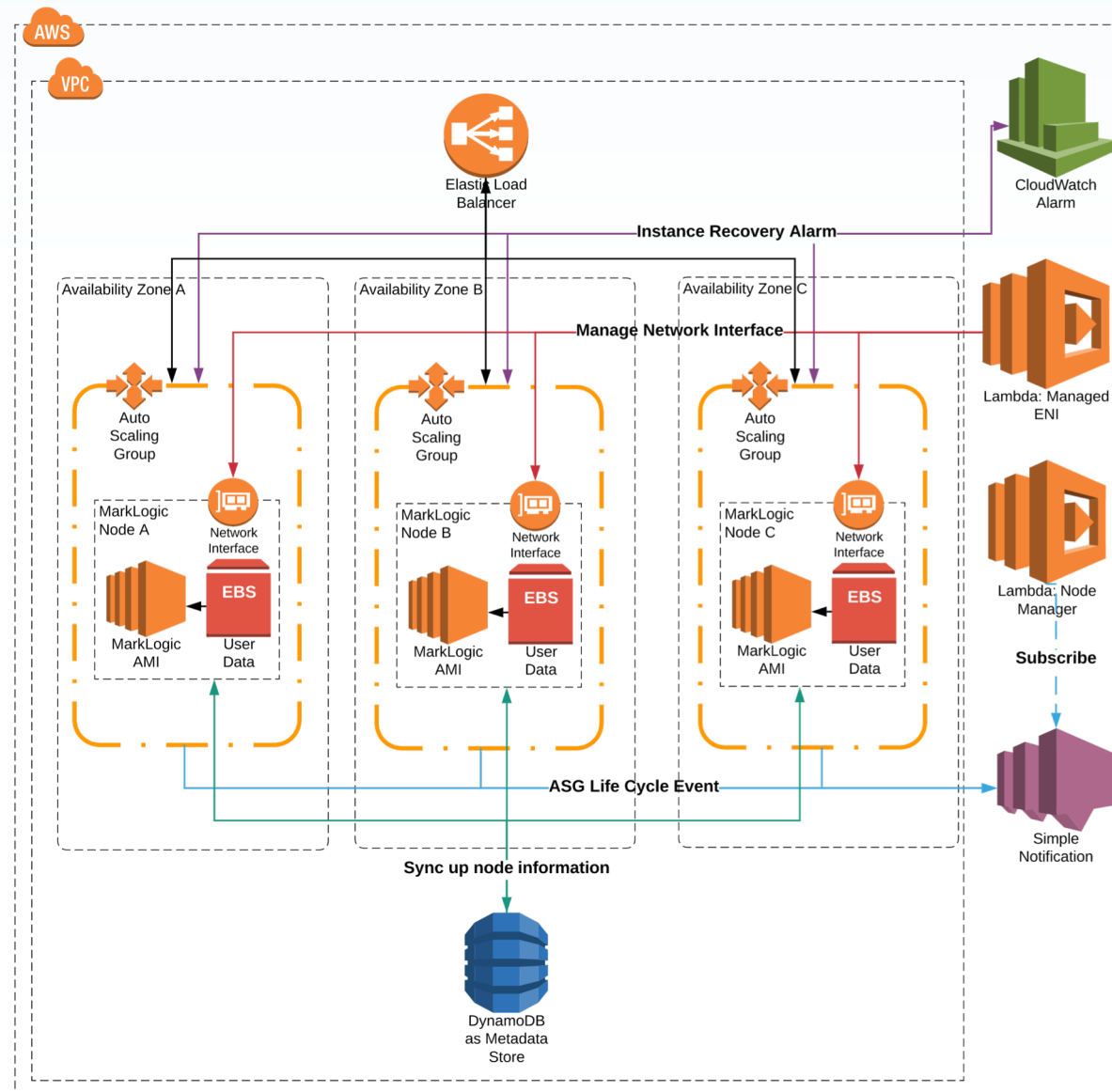
Amazon SNS



virtual private cloud

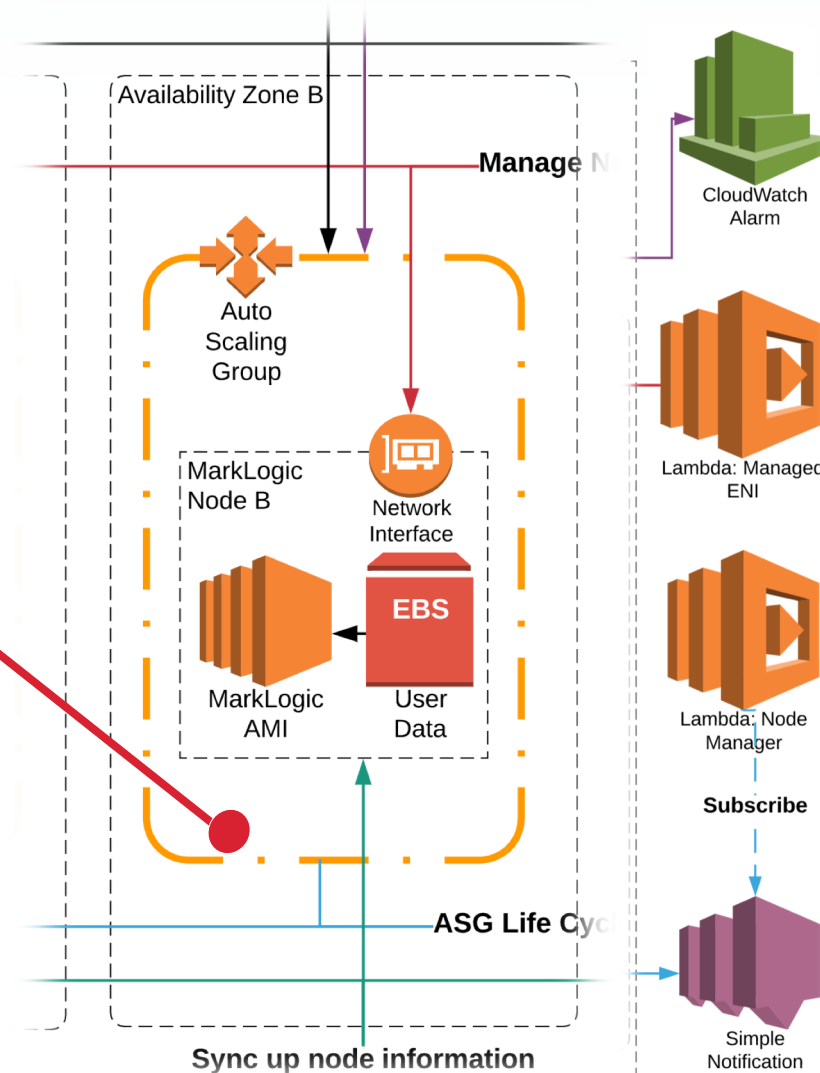
## MARKLOGIC CLUSTER

# Reference Architecture Diagram

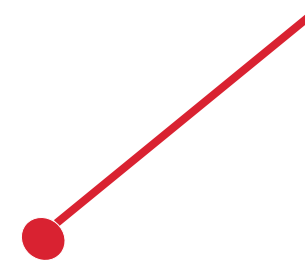


# MarkLogic Cluster on AWS

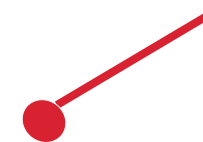
- EC2 instance running MarkLogic AMI
- Elastic Block Storage for user data
- Elastic Network Interface
- Auto Scaling Group
- Availability Zone



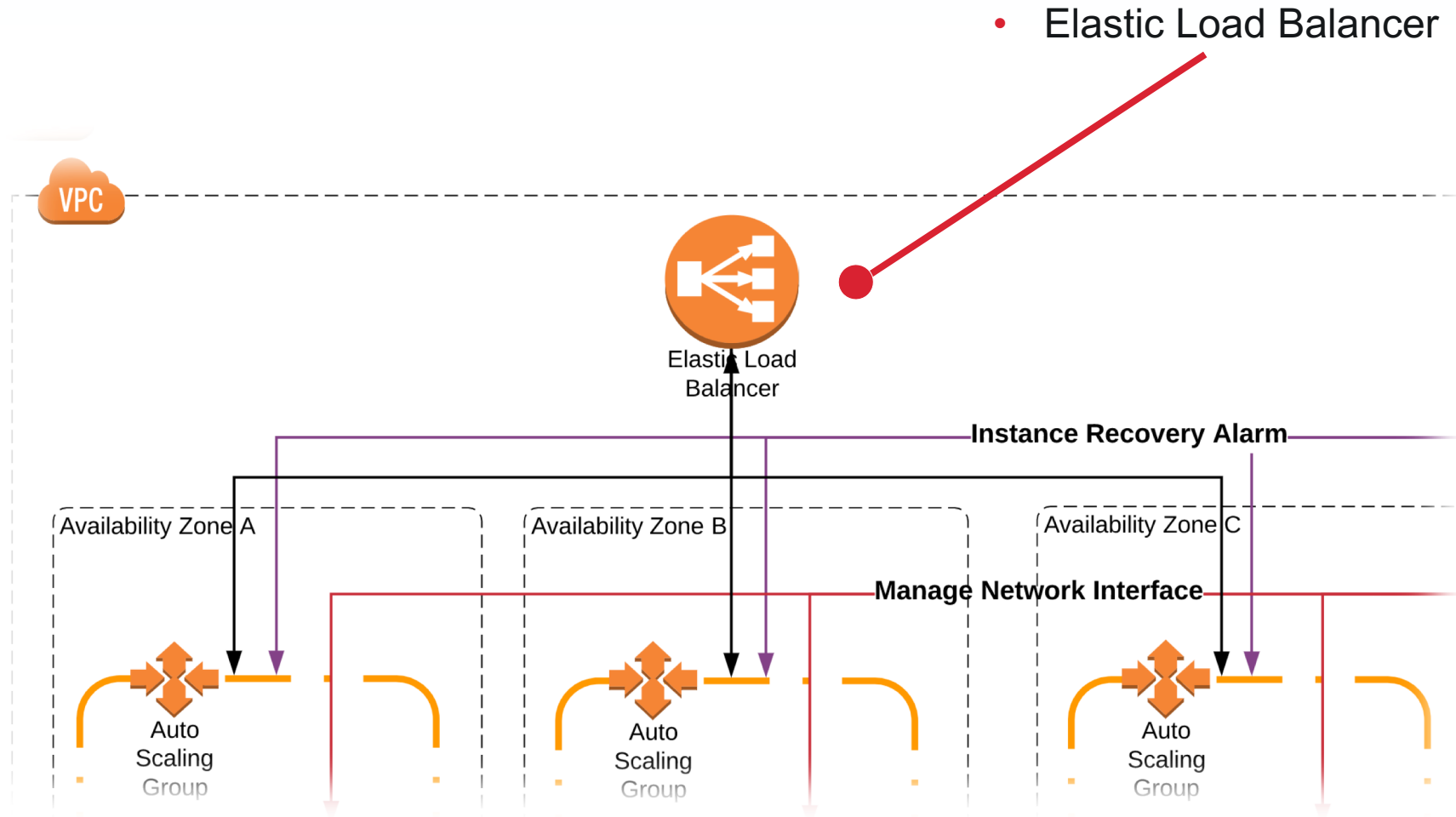
- CloudWatch alarm monitors node
- AWS Lambda manages ENI
- Simple Notification Service



- Logging events of the cluster to SNS

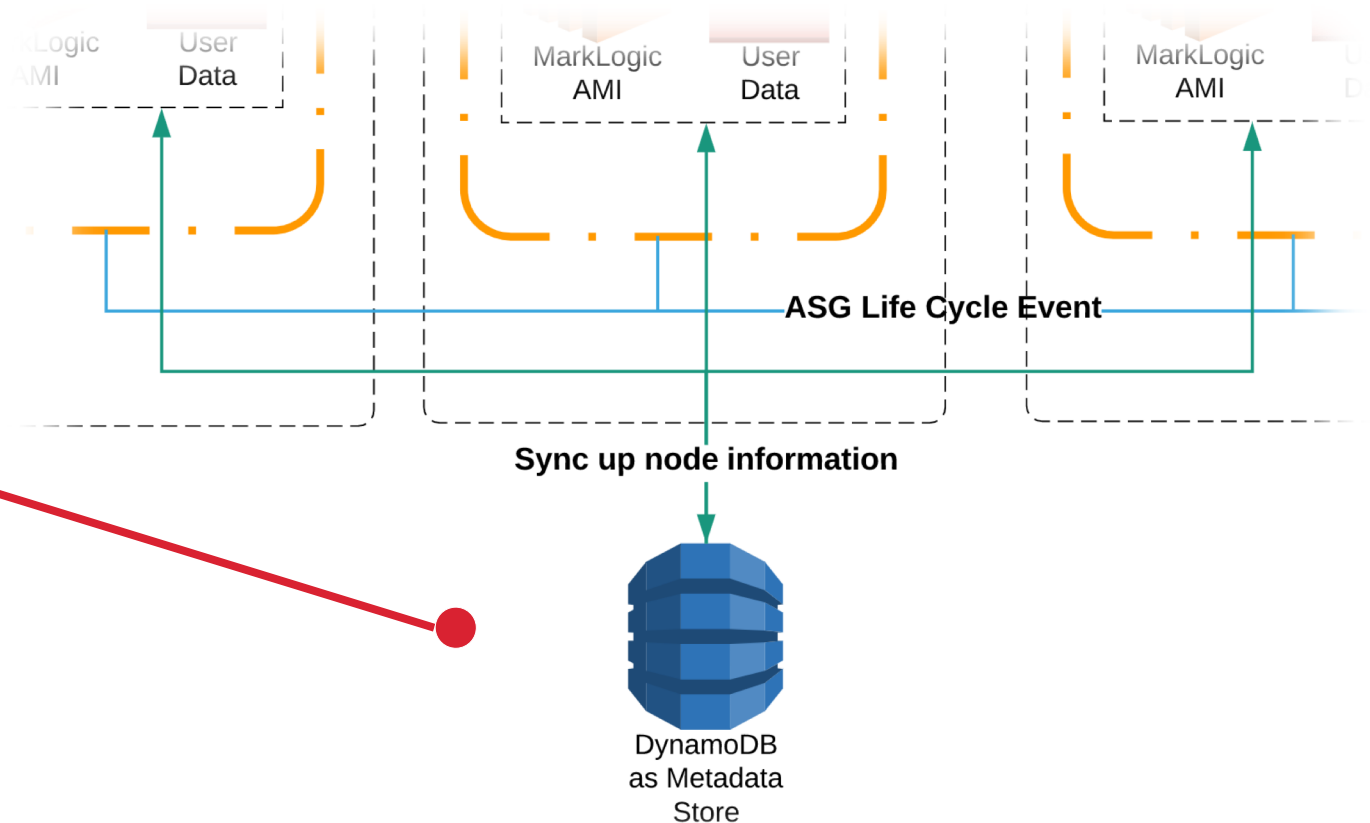


# MarkLogic Cluster on AWS



# MarkLogic Cluster on AWS

- Using DynamoDB to store metadata of the cluster





## MARKLOGIC CLUSTER

# Useful Resources

---

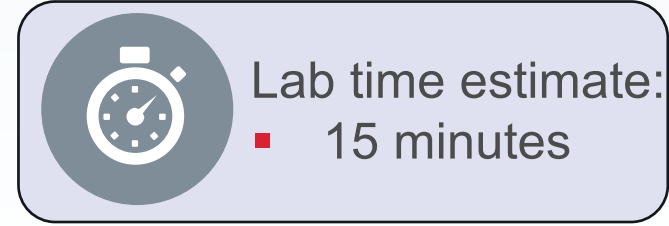
- **MarkLogic Server on Amazon EC2 Guide:**  
<http://docs.marklogic.com/guide/ec2>
- **MarkLogic Cloud-Enablement GitHub:**  
<https://github.com/marklogic/cloud-enablement>
- **MarkLogic in the Cloud:**  
<https://developer.marklogic.com/products/cloud>



Lab time estimate:  
■ 15 minutes

# Unit 1 Exercise – Deploy Cluster

- Use CloudFormation template.
  - Customize cluster parameters.
    - Wait for the cluster to come online.
  - Check the status of running cluster.
- **DO**
    - Note the resources deployed with a managed cluster.
    - Check the nodes are forming a functional cluster.



# Unit 1 Optional Exercise

- Deploy a cluster into existing VPC
  - Single node cluster
- **DO**
    - Notice the difference of configuration parameters.
    - Check the nodes are forming a functional cluster, but only one node.

## MARKLOGIC CLUSTER

# Unit 1 QUIZ

- What happens to the cluster if one node goes down?
- What happens to your data if one node goes down?

# Questions?

Unit 1 – Deployment of a Cluster