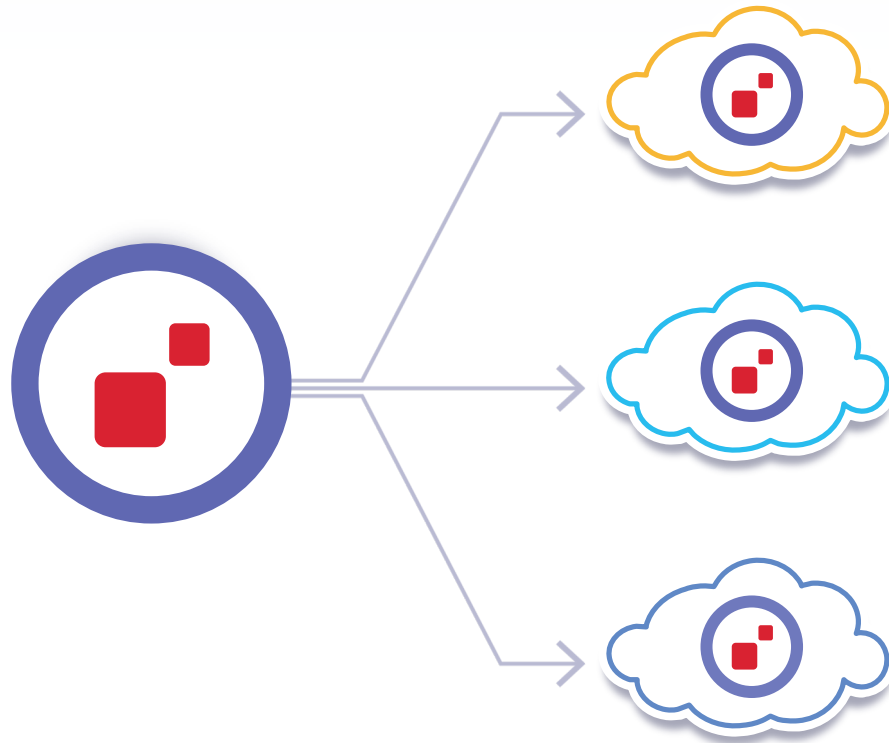


MarkLogic in the Cloud Workshop

Unit 1 – Deployment of a Cluster



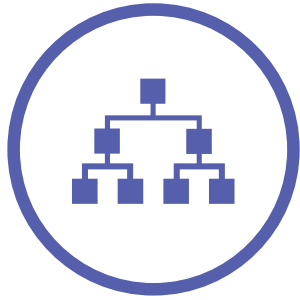
MARKLOGIC CLUSTER

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



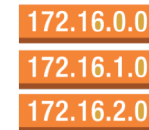
Amazon VPC



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



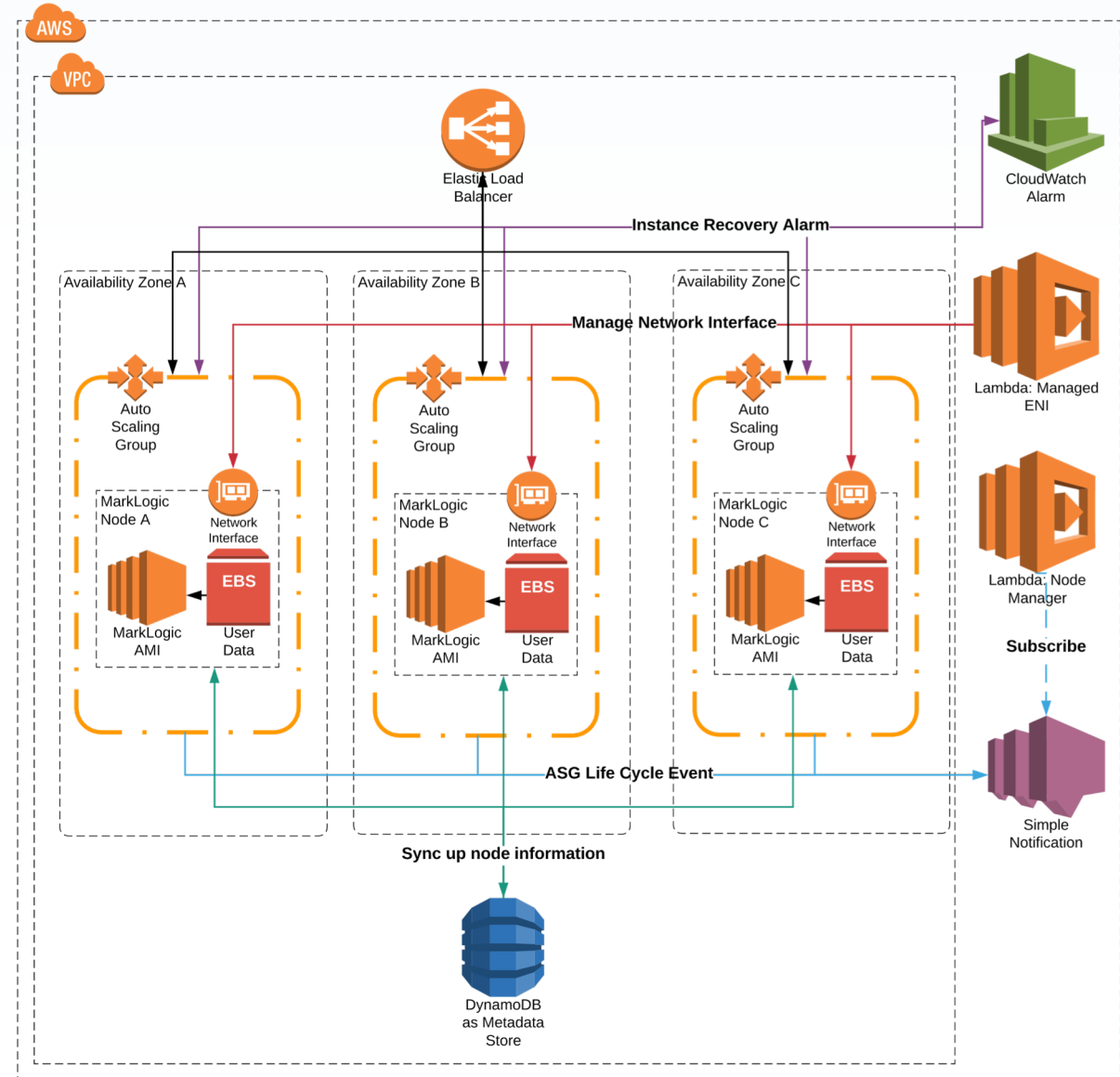
Amazon SNS



virtual private cloud

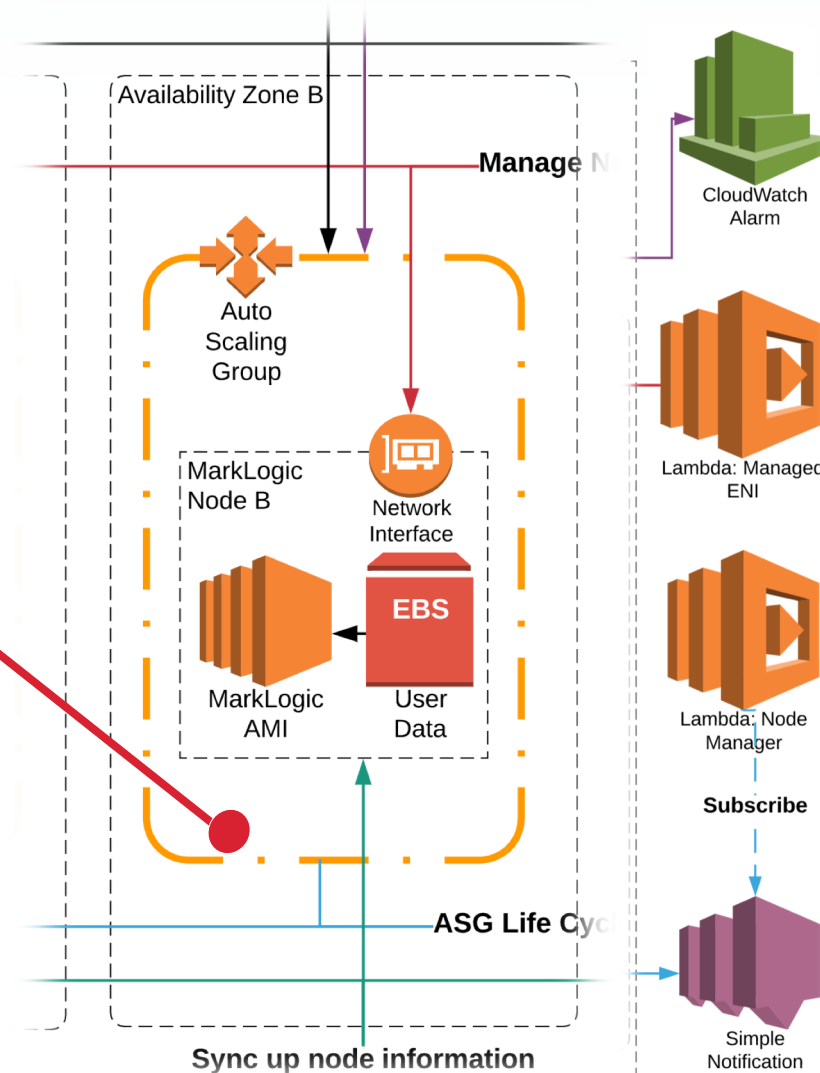
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Reference Architecture Diagram

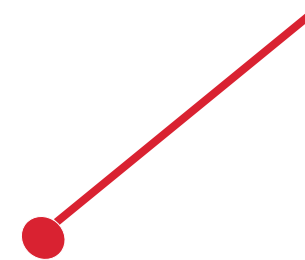


MarkLogic Cluster on AWS

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



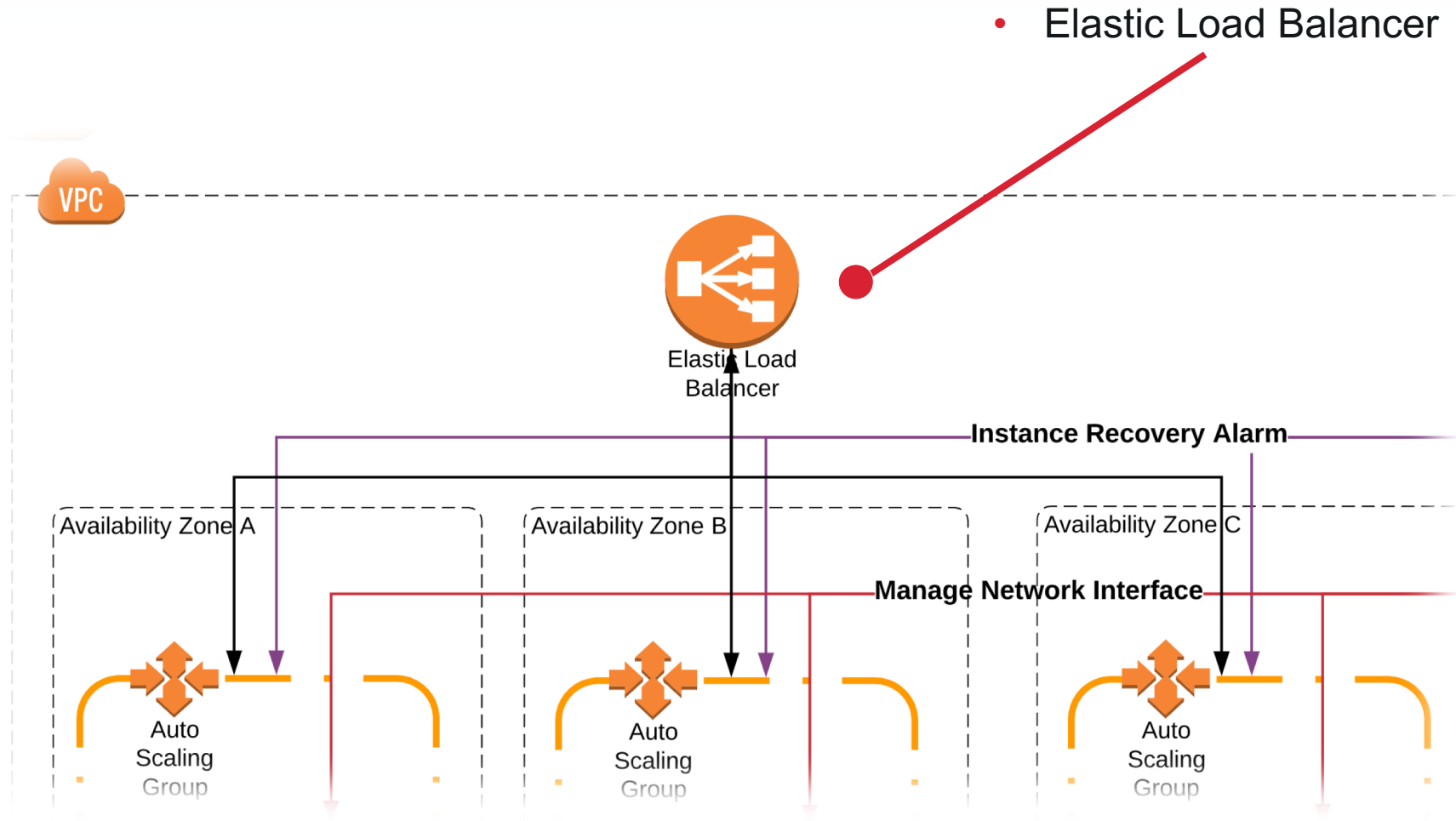
- CloudWatch alarm monitors node
- AWS Lambda manages ENI
- Simple Notification Service



- Logging events of the cluster to SNS

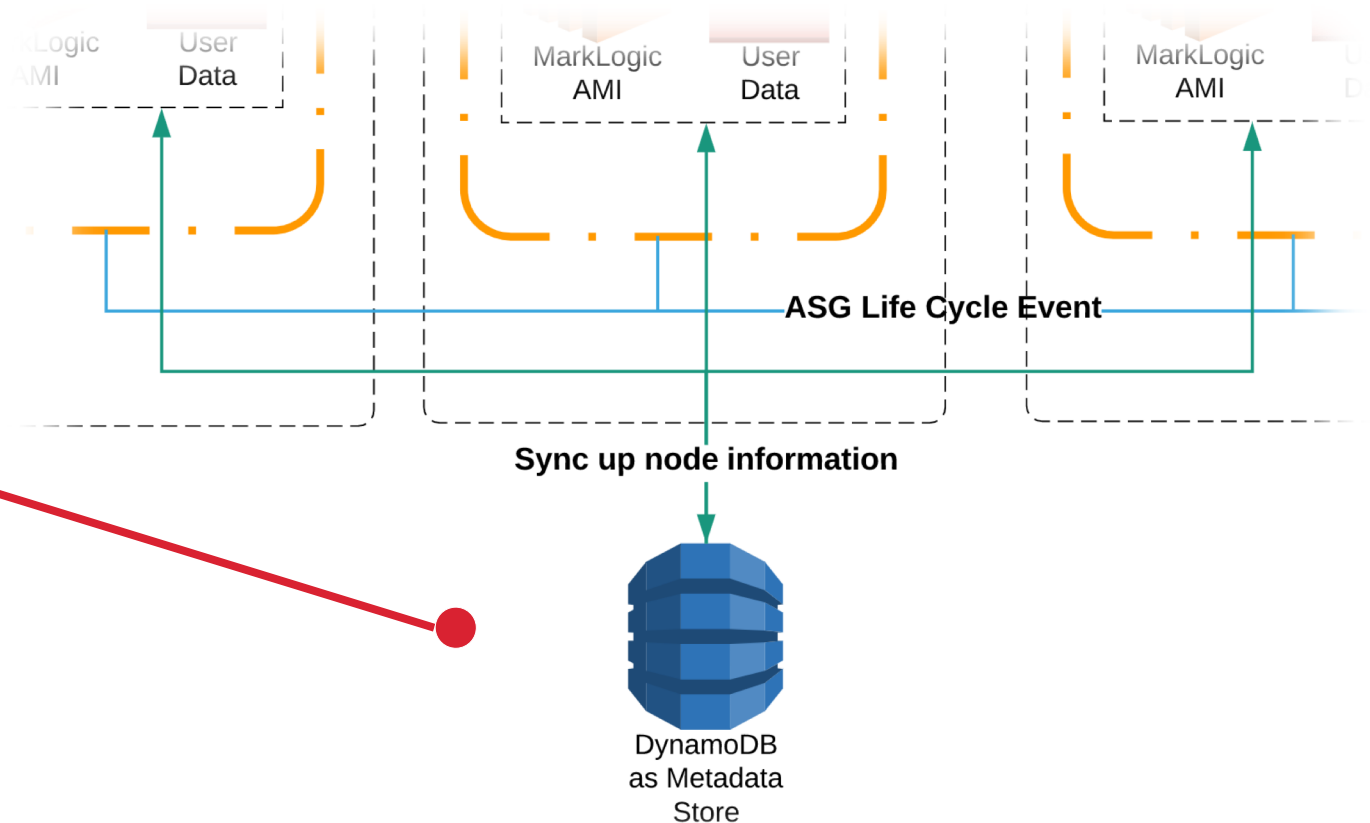


MarkLogic Cluster on AWS



MarkLogic Cluster on AWS

- Using DynamoDB to store metadata of the cluster



MARKLOGIC CLUSTER

Useful Resources

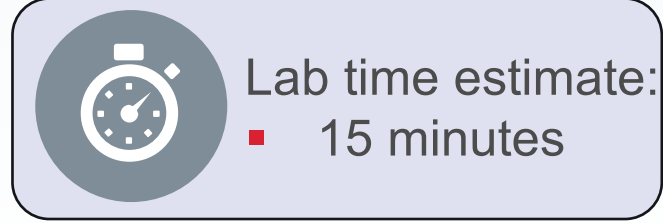
- **MarkLogic Server on Amazon EC2 Guide:**
<http://docs.marklogic.com/guide/ec2>
- **MarkLogic Cloud-Enablement GitHub:**
<https://github.com/marklogic/cloud-enablement>
- **MarkLogic in the Cloud:**
<https://developer.marklogic.com/products/cloud>



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.

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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