Westcon AWS

Active Directory Starter Kit

Deployment Guide







Windows Virtual Machine Bundle – CloudFormation Deployment Guide

This guide is for the deployment of the **Windows Virtual Machine Bundle** using CloudFormation.

Pre-requisites

- 1. An existing EC2 Key Pair
- 2. A VPC please identify the VPC ID from the AWS Console
- 3. A subnet within the VPC please identify the Subnet ID in which you will deploy the VM

An existing EC2 Key pair is needed. If you already have an existing EC2 Key Pair, skip the "Creating EC2 Key Pair" portion and proceed to the "Deploying Template Using CloudFormation" portion.

Creating an EC2 Key Pair

- 1. On the AWS console, navigate to the EC2 service.
- 2. Under Network and Security, click on "Key Pairs".

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3. Click on "Create key pair" to continue.

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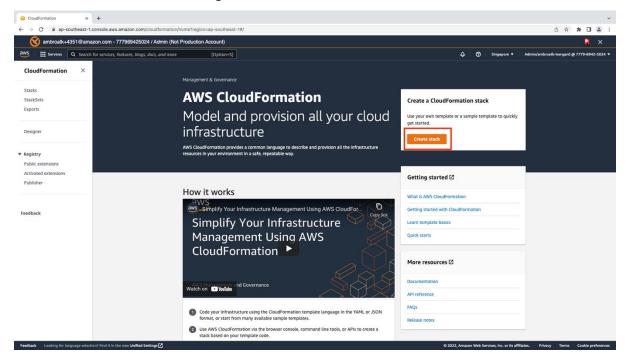
- 4. Enter a name for the Key Pair. Ensure that the "RSA" type and ".pem" format is selected.
- 5. Click on "Create key pair".

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Cancel Create key pair						



Deploying Template Using CloudFormation

1. On the AWS console, navigate to the CloudFormation service. Click "Create stack".



- 2. Select "Upload a template file"
- 3. Click on "Choose File", then select the "EC2-AD.yaml" file. Click "Next".

Treate stack							
Prerequisite - Prepare template							
Prepare template Every stack is based on a template. A template is a JSON or YAML file that co	ontains configuration information abo	ut the AWS resources you want to incl	ude in the stack.				
• Template is ready	O Use a sample template		O Create template in Designer				
Specify template A template is a JSON or YAML file that describes your stack's resources and p	properties.						
Template source Selecting a template generates an Amazon S3 URL where it will be stored.							
O Amazon S3 URL		 Upload a template file 					
Upload a template file Choose file EC2-AD.yaml JSON or YAML formatted file							
S3 URL: https://s3.ap-southeast-2.amazonaws.com/cf-template	s-1cdbs45irj0zl-ap-southeast-2/2	2022-12-08T040017.893Zdmf-E	C2-AD.yaml	View in Designer			
				Cancel Next			



- 4. In the next page, enter a name for the stack. You will have to fill in the following information:
 - Network Configuration
 - VPC where you want to deploy the Domain Controller. Please use the networking bundle if this is a fresh AWS setup
 - The Subnet where this Domain Controller will be deployed
 - Domain Controller Configuration:
 - Hostname of the Domain Controller
 - Domain DNS Name this will be the FQDN of the domain
 - o Domain Mode
 - Forest Mode
 - Safe Administrator Password
 - Virtual Machine Configuration Parameters
 - o VM name
 - \circ ~ Key Pair the file used to connect to the Virtual Machine
 - Instance type Size of the Instance
 - \circ Allowed Subnets or IP's to connect to the instance (0.0.0.0/0 by default)



Network Configuration

myVPC

The VPC ID where the instance is going to be deployed

Select AWS::EC2::VPC::Id

SubnetID

The SubnetID where this instance is going to be deployed

Select AWS::EC2::Subnet::Id

AD Configuration Parameters

Hostname

Hostname - maximum 15 characters

Enter String

DomainDNSName

Fully Qualified Domain Name

mydomain.com.au

DomainNetBiosName

NETBIOS Domain Nar

mydomain

DomainMode

Domain Mode WinThreshold

ForestMode Forest Mode

WinThreshold

SafeModeAdministratorPassword SafeModeAdministrator

Enter String

Virtual Machine Configuration Parameters

ServerName

Please provide a server name

Enter String

KeyName

```
Name of an existing EC2 KeyPair to enable SSH access to the instance
```

Select AWS::EC2::KeyPair::KeyName

InstanceType

WebServer EC2 instance type (for SMALL server use t3.medium, for a MEDIUM server use m5.large, for a LARGE server use m5.xlarge)

t3.medium

RDPLocation

The IP address range that can be used to RDP to the Virtual Machine

- 5. Once All the parameters are filled in, click "Next".
- 6. In the "Configure Stack Option" click "Next".



7. In the "Review Page" make sure that you allow the template to create custom IAM resources and then click "Submit".

The following resource(s) require capabilities: [AWS::CloudFormation::Stack]
This template contains Identity and Access Management (IAM) resources. Check that you want to create each of these resources and the template contains Identity and Access Management (IAM) resources.
they have the minimum required permissions. In addition, they have custom names. Check that the custom names are unique within y AWS account. Learn more 🔀
For this template, AWS CloudFormation might require an unrecognized capability: {0}. Check the capabilities of these resources. Learn more 🖸
✓ I acknowledge that AWS CloudFormation might create IAM resources with custom names.
I acknowledge that AWS CloudFormation might require the following capability: CAPABILITY_AUTO_EXPAND

8. Once submitted you will see the template being deployed.

CloudFormation > Stacks > New-DC-Bundle			
C Q, Filter by stack name	Stack info Events Resources Outputs Parameters Template	Delete Update Change sets	Stack actions ▼ Create stack ▼
Active View nested	Events (1) Q. Search events		C
New-DC-Bundle Image: Classical state s	Timestamp v Logical ID Statu 2022-12-08 16:45:59 UTC+0800 New-DC-Bundle Image: Colored	tus CREATE_IN_PROGRESS	Status reason User Initiated
Network-Bundle			



9. Wait for all the resources to be created. Press the refresh button on the top right until the stack creation is complete.

CloudFormation > Stacks > New-DC-But	C	New-DC-Bundle Stack info Events Resources Ou	tputs Parameters Template		k actions ▼ Create stack ▼
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		2022-12-08 16:46:08 UTC+0800 Instan	ceSecurityGroup	CREATE_IN_PROGRESS	Resource creation Initiated

10. The created stack should look like this. All the resources have now been created and deployed.

11. Click on the "Outputs" tab to retrieve information about your server

Stack info Events Res	ources Outputs Parameters	Template Change sets	
Outputs (6)			
Q Search outputs			
Кеу	▲ Value		rt na
AZ	ap-southeast-2a	Availability Zone of the newly created - EC2 instance -	
Instanceld	i-07a80860118bc2302	InstanceId of the newly created EC2 - instance	
PrivateDNS	ip-10-0-5-24.ap-southeast- 2.compute.internal	Private DNSName of the newly - created EC2 instance	
PrivatelP	10.0.5.24	Private IP address of the newly - created EC2 instance	

12. Use the public IP to remote to your Virtual Machine if it is in a public subnet, or use the private subnet if you are using a Bastion host/jump server to access the Virtual Machine



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