AWS Demo

Infrastructure deployment/verification guide

(July 7, 2016)

Author(s):

Michal Vydareny (michal.vydareny@accenture.com)

XYZ

Content:

1. Stack deployment using AWS CLI

2. Stack deployment status verification

3. Stack resources review

4. Obtaining specific instance details

5. Operating system verification for Linux servers

6. Operating system verification for Windows servers

1. Stack deployment using AWS CLI

aws cloudformation create-stack --stack-name *stack\_name* --template-body *file:///path\_to\_json\_file*

Note: The file path must be preceding the "file:///"

Example (the command output is the StackId):

user@server$ aws cloudformation create-stack --stack-name awsdemo --template-body file:///Users/michalvydareny/Accenture/AWS/demo/aws\_json.json

{

"StackId": "arn:aws:cloudformation:eu-west-1:758855289649:stack/awsdemo/bd35f350-436b-11e6-b4e1-50fae9b818d2"

}

2. Stack deployment status verification

aws cloudformation describe-stacks --stack-name *stack\_name*

Example (failed deployment - indicated by ROLLBACK\_COMPLETE):

user@server$ aws cloudformation describe-stacks --stack-name awsdemo

STACKS 2016-07-05T17:35:58.692Z False arn:aws:cloudformation:eu-west-1:758855289649:stack/awsdemo/ef5098d0-42d6-11e6-bca1-500c3cb898d2 awsdemo ROLLBACK\_COMPLETE

Example (successful deployment - indicated by CREATE\_COMPLETE):

user@server$ aws cloudformation describe-stacks --stack-name aaa

STACKS 2016-07-06T09:34:22.967Z False arn:aws:cloudformation:eu-west-1:758855289649:stack/aaa/d27abc50-435c-11e6-8538-50a68645b2d2 aaa CREATE\_COMPLETE

3. Stack resources review

aws cloudformation list-stack-resources --stack-name *stack\_name*

Example (lists all resources):

user@server$ aws cloudformation list-stack-resources --stack-name aaa

STACKRESOURCESUMMARIES 2016-07-06T09:34:44.121Z AWSDEMO vpc-55885331 CREATE\_COMPLETE AWS::EC2::VPC

STACKRESOURCESUMMARIES 2016-07-06T09:36:02.807Z LbMesFe LbMesFe CREATE\_COMPLETE AWS::ElasticLoadBalancing::LoadBalancer

STACKRESOURCESUMMARIES 2016-07-06T09:35:05.752Z Production subnet-104efb66 CREATE\_COMPLETE AWS::EC2::Subnet

STACKRESOURCESUMMARIES 2016-07-06T09:35:03.759Z SgMesBe sg-1f533d78 CREATE\_COMPLETE AWS::EC2::SecurityGroup

STACKRESOURCESUMMARIES 2016-07-06T09:35:03.577Z SgMesFe sg-10533d77 CREATE\_COMPLETE AWS::EC2::SecurityGroup

STACKRESOURCESUMMARIES 2016-07-06T09:35:08.102Z flow1 flow1 CREATE\_COMPLETE AWS::EC2::SecurityGroupIngress

STACKRESOURCESUMMARIES 2016-07-06T09:35:07.757Z flow2 flow2 CREATE\_COMPLETE AWS::EC2::SecurityGroupIngress

STACKRESOURCESUMMARIES 2016-07-06T09:35:09.887Z flow3 flow3 CREATE\_COMPLETE AWS::EC2::SecurityGroupIngress

STACKRESOURCESUMMARIES 2016-07-06T09:34:44.045Z ig1 igw-92f5c4f7 CREATE\_COMPLETE AWS::EC2::InternetGateway

STACKRESOURCESUMMARIES 2016-07-06T09:35:56.012Z instance1 i-0bad36a1eb60ae66b CREATE\_COMPLETE AWS::EC2::Instance

STACKRESOURCESUMMARIES 2016-07-06T09:35:56.853Z instance2 i-0228a298de52ea979 CREATE\_COMPLETE AWS::EC2::Instance

STACKRESOURCESUMMARIES 2016-07-06T09:35:04.351Z vpcga1 aaa-vpcga1-DGRMJLB2LITE CREATE\_COMPLETE AWS::EC2::VPCGatewayAttachment

4. Obtaining specific instance details

aws ec2 describe-instances --instance-id *instance\_id* --output (json|text)

Example (lists all instance details):

user@server$ aws ec2 describe-instances --instance-id i-0bad36a1eb60ae66b --output json

{

"Reservations": [

{

"OwnerId": "758855289649",

"ReservationId": "r-0be7c48b2147d8e84",

"Groups": [],

"Instances": [

{

"Monitoring": {

"State": "disabled"

},

"PublicDnsName": "ec2-52-209-12-61.eu-west-1.compute.amazonaws.com",

"State": {

"Code": 16,

"Name": "running"

},

"EbsOptimized": false,

"LaunchTime": "2016-07-06T09:35:09.000Z",

"PublicIpAddress": "52.209.12.61",

"PrivateIpAddress": "10.30.1.149",

"ProductCodes": [],

"VpcId": "vpc-55885331",

"StateTransitionReason": "",

"InstanceId": "i-0bad36a1eb60ae66b",

"ImageId": "ami-f990188a",

"PrivateDnsName": "ip-10-30-1-149.eu-west-1.compute.internal",

"KeyName": "LG\_AWS\_OBO\_20160609",

"SecurityGroups": [

{

"GroupName": "aaa-SgMesBe-1CV7EC7INSOCU",

"GroupId": "sg-1f533d78"

}

],

"ClientToken": "aaa-instanc-B8RQTI3HMG1",

"SubnetId": "subnet-104efb66",

"InstanceType": "c4.2xlarge",

"NetworkInterfaces": [

{

"Status": "in-use",

"MacAddress": "06:90:a4:e5:3d:93",

"SourceDestCheck": true,

"VpcId": "vpc-55885331",

"Description": "",

"Association": {

"PublicIp": "52.209.12.61",

"PublicDnsName": "ec2-52-209-12-61.eu-west-1.compute.amazonaws.com",

"IpOwnerId": "amazon"

},

"NetworkInterfaceId": "eni-4014c70d",

"PrivateIpAddresses": [

{

"PrivateDnsName": "ip-10-30-1-149.eu-west-1.compute.internal",

"Association": {

"PublicIp": "52.209.12.61",

"PublicDnsName": "ec2-52-209-12-61.eu-west-1.compute.amazonaws.com",

"IpOwnerId": "amazon"

},

"Primary": true,

"PrivateIpAddress": "10.30.1.149"

}

],

"PrivateDnsName": "ip-10-30-1-149.eu-west-1.compute.internal",

"Attachment": {

"Status": "attached",

"DeviceIndex": 0,

"DeleteOnTermination": true,

"AttachmentId": "eni-attach-5c3f6d99",

"AttachTime": "2016-07-06T09:35:09.000Z"

},

"Groups": [

{

"GroupName": "aaa-SgMesBe-1CV7EC7INSOCU",

"GroupId": "sg-1f533d78"

}

],

"SubnetId": "subnet-104efb66",

"OwnerId": "758855289649",

"PrivateIpAddress": "10.30.1.149"

}

],

"SourceDestCheck": true,

"Placement": {

"Tenancy": "default",

"GroupName": "",

"AvailabilityZone": "eu-west-1c"

},

"Hypervisor": "xen",

"BlockDeviceMappings": [

{

"DeviceName": "/dev/sda1",

"Ebs": {

"Status": "attached",

"DeleteOnTermination": true,

"VolumeId": "vol-9d509168",

"AttachTime": "2016-07-06T09:35:09.000Z"

}

},

{

"DeviceName": "/dev/sdh",

"Ebs": {

"Status": "attached",

"DeleteOnTermination": true,

"VolumeId": "vol-5a5091af",

"AttachTime": "2016-07-06T09:35:09.000Z"

}

}

],

"Architecture": "x86\_64",

"RootDeviceType": "ebs",

"RootDeviceName": "/dev/sda1",

"VirtualizationType": "hvm",

"Tags": [

{

"Value": "arn:aws:cloudformation:eu-west-1:758855289649:stack/aaa/d27abc50-435c-11e6-8538-50a68645b2d2",

"Key": "aws:cloudformation:stack-id"

},

{

"Value": "instance1",

"Key": "aws:cloudformation:logical-id"

},

{

"Value": "aaa",

"Key": "aws:cloudformation:stack-name"

},

{

"Value": "AWS\_Demo\_MESBE\_1",

"Key": "Name"

}

],

"AmiLaunchIndex": 0

}

]

}

]

}

Example (getting specific detail):

user@server$ aws ec2 describe-instances --instance-id   
i-0bad36a1eb60ae66b --output json | grep PublicIpAddress

"PublicIpAddress": "52.209.12.61",

5. Operating system verification for Linux servers

ssh -i *path\_to\_public\_key* *username*@*IP\_address* "*command*"

Example:

user@server$ ssh -i AWS/key\_pairs/ipsec\_ubuntu\_server.pem ubuntu@52.208.45.232 "cat /proc/version"

Linux version 3.13.0-74-generic (buildd@lcy01-07) (gcc version 4.8.2 (Ubuntu 4.8.2-19ubuntu1) ) #118-Ubuntu SMP Thu Dec 17 22:52:10 UTC 2015

6. Operating system verification for Windows servers

Sangeetha...