



ArcGIS Enterprise: Cloud Operations using Amazon Web Services

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Quick Survey

- Your role in your organization
- Already a cloud user
- Running Esri deployment on AWS
- Consider yourself knowledgeable of AWS



Agenda

- Getting Started
- ArcGIS Enterprise on AWS Offerings
 - AMIs & Deployment Tools
 - Support for Native Cloud Storage
 - Upgrade Your Deployments
- Case Study
 - *Approach*
 - *Enterprise GIS Environment designed to Best Practices*
 - Components / Target Architecture
 - Operational Practices
 - Deployments
 - Costs
 - Monitoring
 - License Updates
 - Upgrades

Getting Started



ArcGIS Enterprise Support for Cloud Providers



阿里云计算
Alibaba Cloud Computing



rackspace
the open cloud company



ArcGIS Enterprise Special Tooling



**Cloud
deployments**

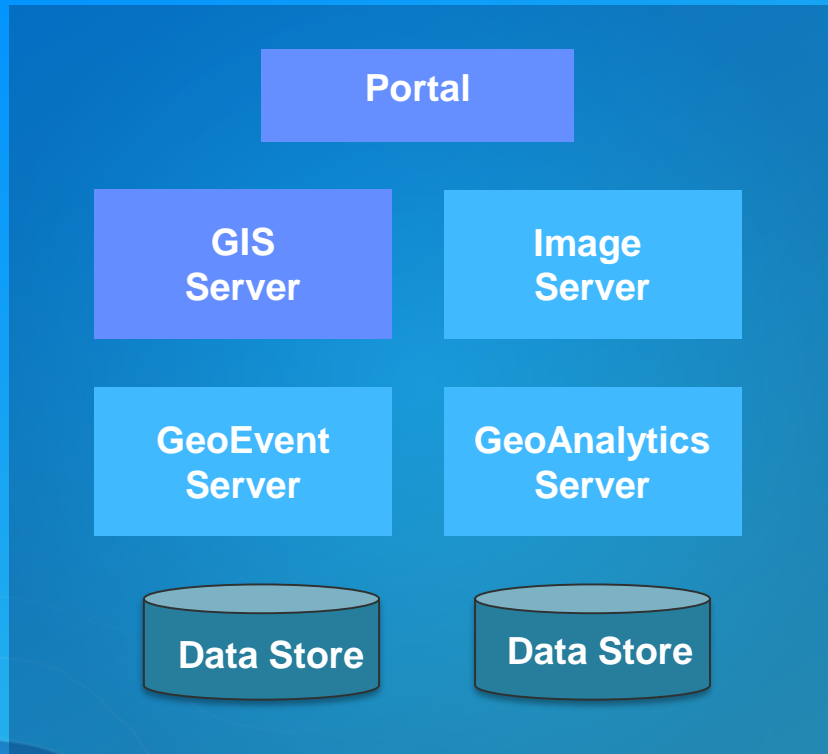


**Amazon Web
Services**



**Microsoft
Azure**

ArcGIS Enterprise



ArcGIS Enterprise

=



ArcGIS Web Adaptor



Portal for ArcGIS



ArcGIS Server



ArcGIS Data Store



GIS Server



Image Server



GeoEvent Server



GeoAnalytics Server

ArcGIS Web Adaptor



Portal for ArcGIS

ArcGIS Web Adaptor



Hosting Server



ArcGIS Data Store
(relational + tile cache)

Before Starting

| On-premise | AWS |
|----------------------------------|----------------------------------|
| Esri authorization files | Esri authorization files |
| Domain_name for your application | Domain_name for your application |
| SSL Certificate for your domain | SSL Certificate for your domain |
| Esri software setups | AWS Account |
| Infrastructure | |
| Machines/VMs/Networks | |
| Web Servers and/or Load Balancer | |
| File Server | |
| Data storage/Database | |
| | |

Start Deployment

| On-premise | AWS |
|---|--|
| <p data-bbox="216 486 1141 536">Some knowledge about your infrastructure</p> <p data-bbox="216 582 1116 722">Manually run setups/configurations on all machines or</p> <p data-bbox="216 772 744 822">Deployment automation</p> | <p data-bbox="1291 486 1913 536">Some knowledge about AWS</p> <p data-bbox="1291 582 1939 632">Esri CloudFormation template</p> <ul data-bbox="1386 679 2219 822" style="list-style-type: none"><li data-bbox="1386 679 2219 729">One deployment for different patterns<li data-bbox="1386 772 2181 822">Scripting tools, python or powershell <p data-bbox="1291 868 2091 918">Esri ArcGIS Cloud Builder CLI for AWS</p> <p data-bbox="1291 965 1600 1015">Customization</p> <ul data-bbox="1386 1062 1969 1205" style="list-style-type: none"><li data-bbox="1386 1062 1500 1112">AMIs<li data-bbox="1386 1153 1969 1203">CloudFormation Templates |

ArcGIS Enterprise Offerings



AMIs

- Windows with SQL Server Express
- Ubuntu with Postgresql
- Available in GovCloud Region

The screenshot shows the AWS Marketplace interface for Esri ArcGIS Enterprise 10.6. The search bar contains 'Esri' and the category is 'AMI & SaaS'. Two AMIs are listed:

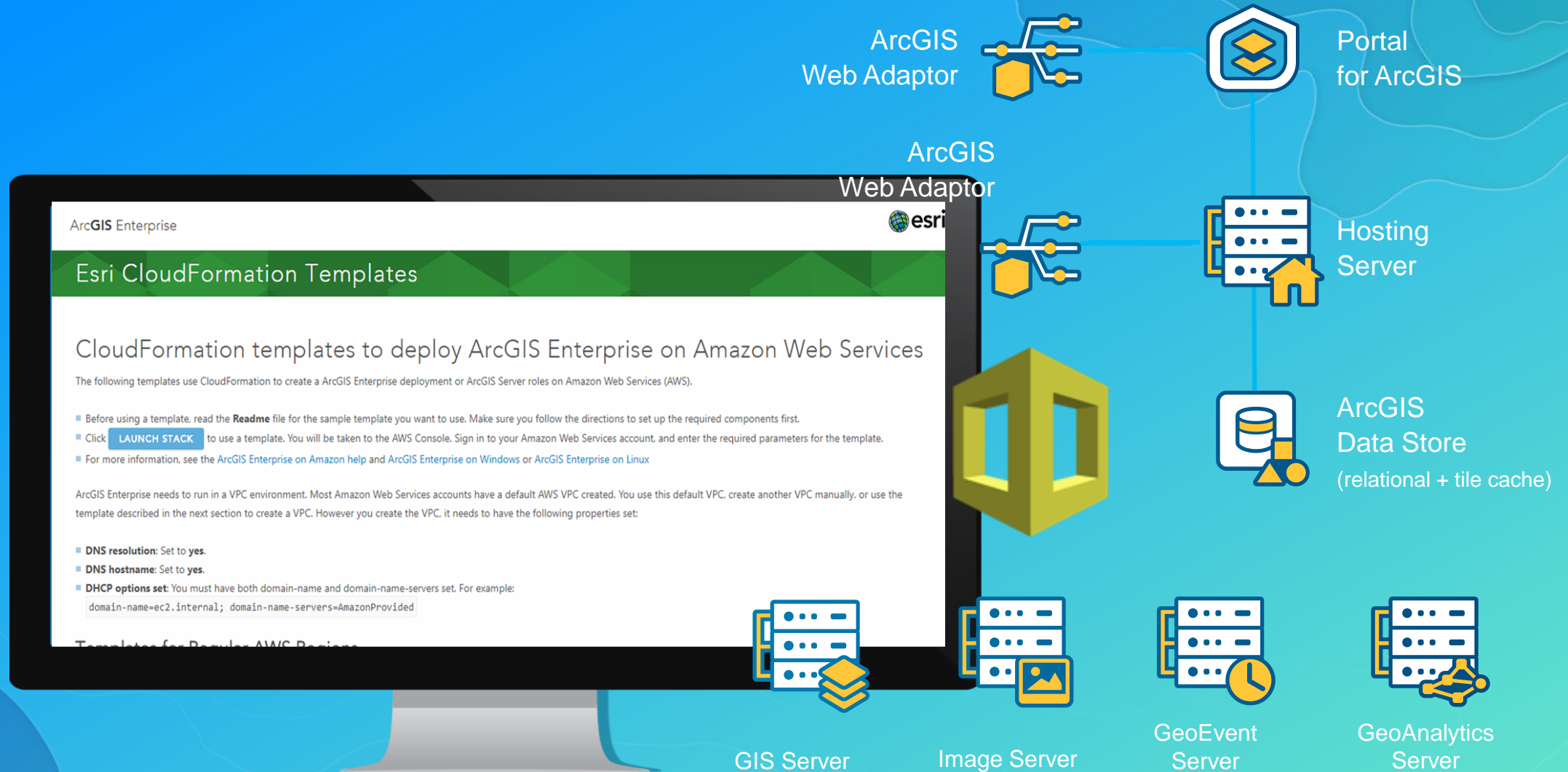
- Esri ArcGIS Enterprise 10.6 on Windows (Jan 2018)**: Version 10.6, Sold by Esri. Description: ArcGIS Enterprise allows maps and geographic information to be accessed anywhere, anytime, on any device. This includes web browsers, smartphones, tablets, and desktop applications. OS: Windows, Windows Server 2016 with SQL Server 2016 Express Windows Server 2016 Datacenter - 64-bit Amazon Machine Image (AMI).
- Esri ArcGIS Enterprise 10.6 on Ubuntu (Jan 2018)**: Version 10.6, Sold by Esri. Description: ArcGIS Enterprise allows maps and geographic information to be accessed anywhere, anytime, on any device. This includes web browsers, smartphones, tablets, and desktop applications. OS: Linux/Unix, Ubuntu 16.04.3 - 64-bit Amazon Machine Image (AMI).

A dropdown menu is open, showing the following regions:

- Asia Pacific (Singapore)
- Asia Pacific (Sydney)
- Asia Pacific (Seoul)
- Asia Pacific (Tokyo)
- Asia Pacific (Mumbai)
- South America (Sao Paulo)
- AWS GovCloud (US)** (highlighted)

Below the dropdown, a note states: "The data below shows pricing per instance for services hosted in US East (N. Virginia)."

Esri Cloud Formation Templates



Native to AWS Tools

Automate CloudFormation Stack creation using Python

Cloudformation stack creation can be ran from command line. You can check [Amazon CloudFormation](#)

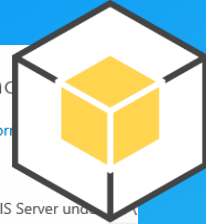
Below is a sample python script to create cloudformation stacks. To run it:

- Make sure you have **Python** installed. Python is also installed with ArcGIS Desktop and ArcGIS Server on Windows. On Linux, run `<ArcGIS Server Installation Directory>/arcgis/server/tools` on Linux.
- Download and install **AWS SDK for Python (boto)**. The easiest way is to install via Pip.
 - If you don't have Pip, install Pip following the directions at <https://pip.pypa.io/en/stable/installing.html>.
 - Install Boto by running: `pip install boto`
- Download **Esri sample python script** and run it with the parameters required by your cloudformation templates. For examples, ArcGIS for Server WebGIS parameter file `cf_parameters.json` defines the parameters required to create a WebGIS stack. Run the script with the following command:
`python cloudformation_stack_creation.py <Your AWS Access key> <Your AWS Secret Access Key>`

Automate CloudFormation Stack creation using Powershell.

Cloudformation stack creation can also be automated using Powershell. Two sample powershell scripts are provided:

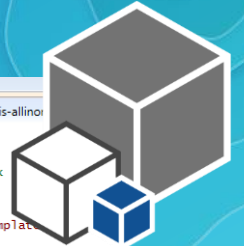
- `arcgis-webgis-ha-windows.ps1` to create highly available WebGIS stack on Windows.
- `arcgis-server-ubuntu-ha-configstore.ps1` to create Server GIS site using DynamoDB and S3 as config-store.



Esri-provided sample scripts

```
arcgis-allinone-windows-vpc-us-east-2-webgistinging.ps1 | arcgis-allinone-windows-vpc-us-east-2-webgistinging-raster.ps1 | arcgis-allinone-windows-vpc-us-east-2-webgistinging.ps1
1 # 1. Upload ArcGIS authorization files and SSL certificate to the deployment S3 bucket
2 #Write-S3Object -BucketName depositions -Key Server.prvc -File C:\ArcGIS10.4\Server.prvc
3 #Write-S3Object -BucketName webgis2 -Key Portal.prvc -File C:\ArcGIS10.4\Portal.prvc
4 #Write-S3Object -BucketName webgis2 -Key webgis1_com.pfx -File C:\ArcGIS10.4\webgis1_com.pfx
5
6 # 2. Create CloudFormation stack
7 New-CFNStack -StackName "webgisbase6489" `
8 -TemplateUrl "http://agsstore.s3.amazonaws.com/6491/templates/arcgis-allinone-windows.template" `
9 -Verbose -Capability CAPABILITY_IAM `
10 -Region "us-east-1"
11 -Parameter @{
12     ParameterKey="DeploymentBucket"; ParameterValue="cherrydeployments" };
13     ParameterKey="DriveSizeData"; ParameterValue="120" };
14     ParameterKey="DriveSizeRoot"; ParameterValue="120" };
15     ParameterKey="InstanceType"; ParameterValue="m4.xlarge" };
16     ParameterKey="StoreType"; ParameterValue="FileSystem" };
17     ParameterKey="KeyName"; ParameterValue="Cherry_USEast_VPCBeta" };
18     ParameterKey="ServerLicenseFile"; ParameterValue="Server_Ent_Adv_AllExt.prvc" };
19     ParameterKey="PortalLicenseFile"; ParameterValue="portal_2000_1000.prvc" };
20     ParameterKey="SiteAdmin"; ParameterValue="admin" };
21     ParameterKey="SiteAdminPassword"; ParameterValue="admin123" };
22     ParameterKey="SiteIPAllocationID"; ParameterValue="eipalloc-91b1ebf4" };
23     ParameterKey="SiteDomain"; ParameterValue="newyork.esri.com" };
24     ParameterKey="SSLCertificateFile"; ParameterValue="importtoho_esri_com.pfx" };
25     ParameterKey="SSLCertPassword"; ParameterValue="0Esri2015" };
26     ParameterKey="VPCId"; ParameterValue="vpc-a6be03c2" };
27     ParameterKey="Subnet"; ParameterValue="subnet-fb6d988d" }} `
28 -DisableRollback $true
29
```

PS C:\Users\cher3495> E:\cherry\job\CFscripts\105\arcgis-allinone-windows-vpc-us-east-2-webgistinging.ps1
VERBOSE: Performing the operation "New-CFNStack (CreateStack)" on target "windowsraster6491".
arn:aws:cloudformation:us-east-2:681701262968:stack/windowsraster6491/78c61440-dcd9-11e6-bc7c-500cef930ce6



Android



iOS



Java



JavaScript



.NET



Node.js



PHP



Python (boto)



Ruby



Xamarin



AWS CLI



AWS Toolkit
for Eclipse



AWS Toolkit
for Visual
Studio



AWS Tools
for Windows
PowerShell

Provided by Esri CF templates

- Esri ArcGIS Server Docker through AWS ECS
 - New at 10.5.1
- Stop/Start the whole stack (Lambda function)
- Remotely Applying Esri patches – through AWS “Run command” tool
 - Windows starting at 10.5.1
 - Ubuntu starting at 10.6



| | Function name | Description | Run |
|-----------------------|--|--|-----|
| <input type="radio"/> | ogccertification-BaseEnterpriseS-StopStackFunction-1THY6SCW9NUCH | Stops all EC2 instances of the CloudFormation stack | Pyt |
| <input type="radio"/> | ogccertification-BaseEnterprise-StartStackFunction-1MJ90NP9MR32 | Starts all EC2 instances of the CloudFormation stack | Pyt |
| <input type="radio"/> | ogccertification-BaseEnte-ServerConfigStoreFunctionio- | | Pyt |

Deployment Tools - Cloud Builder Command Line Interface for AWS

- New at 10.6
- One Run to Deploy ArcGIS Enterprise
 - Base + Federated Servers
 - Define in a json file
- Prepare your deployment



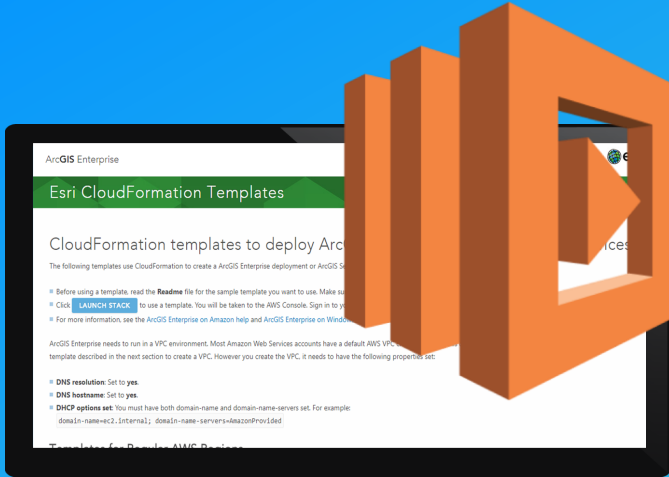
```
"DeploymentDetails":{
  "DeploymentName": "ogccertification",
  "ArcGISVersion": "10.6",
  "OperatingSystem": "Window"
},
"AWSCredentials":{
  "AWSAccessKey": "AKIAINKWSK6MI4",
  "AWSSecretKey": "NLIM4C8cbeIKhA",
  "AWSRegion": "us-east-2"
},
"CloudFormationParameters":{
  "Default": {
    "VPCId": "vpc-8cad44e5",
    "Subnet1": "subnet-f8624cb2",
    "Subnet2": "subnet-905e50e8",
    "DriveSizeRoot": "200",
    "DriveSizeData": "400",
    "KeyName": "Cherry BetaVPC_0h",
    "FSInstanceType": "m4.xlarge",
    "ASInstanceType": "m4.xlarge",
    "SecondaryInstances": "2",
    "BDSInstanceType": "m4.xlarge",
    "BDSInstances": "0",
    "DBEngine": "none",
    "DBInstanceClass": "db.m4.large",
    "DBAllocatedStorage": "200",
    "DeploymentBucket": "cherryde",
    "ServerLicenseFile": "Server",
    "PortalLicenseFile": "portal",
    "StoreType": "CloudStore",
    "SiteAdmin": "admin",
    "SiteAdminPassword": "admin12",
    "RunAsUserPassword": "P@ssw0r",
    "SSLCertificateFile": "wildca",
    "SSLCertPassword": "esri",
    "SSLCertificateARN": "arn:aws",
    "PostInstallationScript": "ncc"
  },
  "BaseEnterprise":{
    "SiteEIPAllocationID": "eipalloc-c9562de7",
    "InstanceType": "m4.xlarge",
    "SiteDomain": "ogc",
    "Type": "AllInOne"
  }
}
```

```
Administrator: Command Prompt
c:\Program Files\ArcGIS\CloudBuilder\AWS\CLI>cloudbuilder.exe CREATE -j Confi
[12:52] - Process initiated with batch id : 20180104125207
[12:52] - 'DeploymentName' node value inside DeploymentDetails section must s
nd length must be greater than 3.
[12:52] - Exiting the process.....
c:\Program Files\ArcGIS\CloudBuilder\AWS\CLI>cloudbuilder.exe CREATE -j Confi
[12:52] - Process initiated with batch id : 20180104125248
[12:52] - Validate parameters is in progress.
[12:52] - Successfully retrieved root domain name : webgisting.net
[12:52] - Validate parameters completed successfully.
[12:52] - Create stack 'ogccertification-BaseEnterpriseStack' is in progress.
[12:52] - Stack creation is in progress. It may take up to few hours.
[12:52] - Refer to log 'ogccertification-BaseEnterpriseStack_events_201801041
ack creation.
[13:50] - Refer to log 'ogccertification-BaseEnterpriseStack_events_201801041
ack creation.
[13:50] - Update DNS entry for 'ogccertification-BaseEnterpriseStack' is in p
[13:51] - DNS entry updated successfully for 'ogccertification-BaseEnterprise
[13:51] - Program output is as below
[13:51] - {
  "BaseEnterprise": {
    "PortalURL": "https://ogc.webgisting.net/portal/home",
    "ServerURL": "https://ogc.webgisting.net/server/manager"
  }
}
[13:51] - Deployment setup completed.
c:\Program Files\ArcGIS\CloudBuilder\AWS\CLI>
```

Cloud Formation Templates VS. Cloud Builder CLI

Highly Customizable

One Run Deployment



Power

Simplicity

```
"DeploymentDetails":{
  "DeploymentName": "ogccertification",
  "ArcGISVersion": "10.6",
  "OperatingSystem": "Window"
},
"AWSCredentials":{
  "AWSAccessKey": "AKIAINXW5K6M1d",
  "AWSSecretKey": "NLI44C8cbeIKM",
  "AWSRegion": "us-east-2"
},
"CloudFormationParameters":{
  "Default": {
    "VPCId": "vpc-8cad44e5",
    "Subnet1": "subnet-f862fcb2",
    "Subnet2": "subnet-909e50e8",
    "DriveSizeRoot": "200",
    "DriveSizeData": "400",
    "KeyName": "Cherry_BetaVPC_O",
    "FSInstanceType": "m4.xlarge",
    "ASInstanceType": "m4.xlarge",
    "SecondaryInstances": "2",
    "BDSInstanceType": "m4.xlarge",
    "BDSInstances": "0",
    "DBEngine": "none",
    "DBInstanceClass": "db.m4.la",
    "DBAllocatedStorage": "200",
    "DeploymentBucket": "cherryde",
    "ServerLicenseFile": "Server",
    "PortalLicenseFile": "portal",
    "StoreType": "CloudStore",
    "StateAdmin": "admin",
    "StateAdminPassword": "admin12",
    "RunAsUserPassword": "P@ssw0r",
    "SSLCertificateFile": "wildca",
    "SSLCertPassword": "esri",
    "SSLCertificateARN": "arn:aws",
    "PostInstallationScript": "nrc:\Program Files\ArcGIS\CloudBuilder\AWS\CLI",
  },
  "BaseEnterprise":{
    "SiteEIPAllocationID": "eipalloc-c9562de7",
    "InstanceType": "m4.xlarge",
    "SiteDomain": "ogc",
    "Type": "AllInOne"
  }
}
```

Administrator: Command Prompt

```
c:\Program Files\ArcGIS\CloudBuilder\AWS\CLI>cloudbuilder.exe CREATE -j Conf1
[12:52] - Process initiated with batch id : 20180104125207
[12:52] - 'DeploymentName' node value inside DeploymentDetails section must s
and length must be greater than 3.
[12:52] - Exiting the process.....
c:\Program Files\ArcGIS\CloudBuilder\AWS\CLI>cloudbuilder.exe CREATE -j Conf1
[12:52] - Process initiated with batch id : 20180104125248
[12:52] - Validate parameters is in progress.
[12:52] - Successfully retrieved root domain name : webgistingesting.net
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[13:51] - Program output is as below
[13:51] - {
  "BaseEnterprise": {
    "PortalURL": "https://ogc.webgistingesting.net/portal/home",
    "ServerURL": "https://ogc.webgistingesting.net/server/manager"
  }
}
[13:51] - Deployment setup completed.
c:\Program Files\ArcGIS\CloudBuilder\AWS\CLI>
```


Demo

Deploy using ArcGIS Enterprise Command Line Interface for AWS



Recycle Bin



ArcGIS_Enter
prise_Cloud_
Builder_AWS_
CLI_106_1618
76



12:13 PM
3/8/2018



Cloud Storage Support

- ArcGIS Server config-store: DynamoDB & S3
- Portal content store: S3
- Cloud Storage in Server Manager: S3
- Caching: S3
 - Consumption: 10.5.1
 - Generation: 10.6
- ArcGIS Spatial Temporal DataStore backups: S3. New at 10.6
- Webgisdr backups: to S3
- GeoAnalytics Data Input : S3

- All Regions At at 10.6
- User-defined S3 compatible storage



Case Study

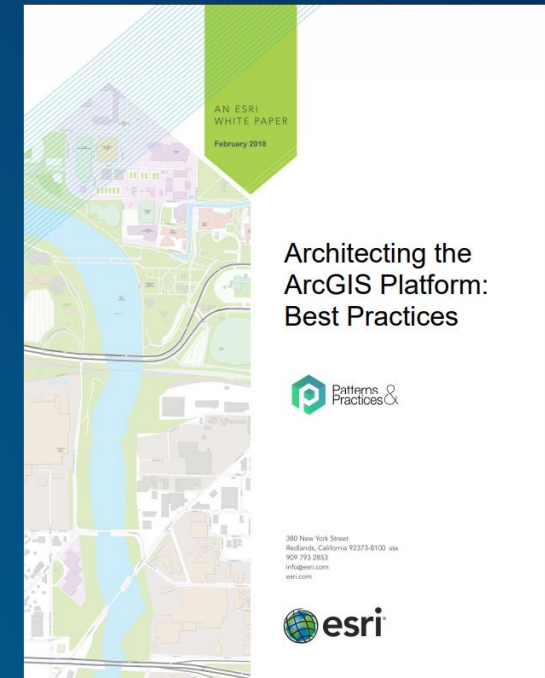
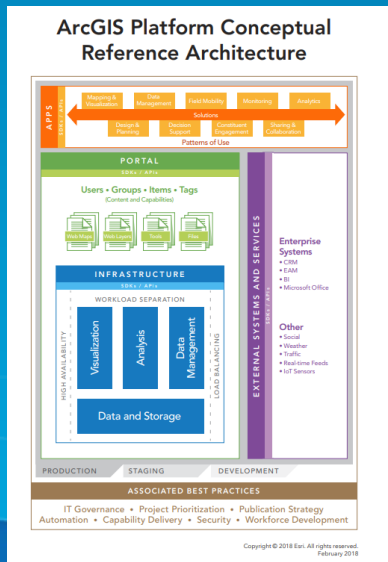


Environment | Requirements

- *Deploy an ArcGIS Platform in AWS*
 - *Includes the following server roles:*
 - *General purpose GIS Server site*
 - *GeoEvent*
 - *GeoAnalytics Server site*
 - *RasterAnalytics Server site*
- *Use ArcGIS Monitor to monitor platform*
- *Develop a plan for License Updates*
- *Develop a plan for future upgrades*

Environment | Best Practices

- Enterprise GIS environment designed to best practices
 - Automation
 - Efficiency, Consistency, Productivity
 - Environment Isolation
 - Reliability and Availability
 - High Availability and Disaster Recovery
 - Workload Separation



Checklist

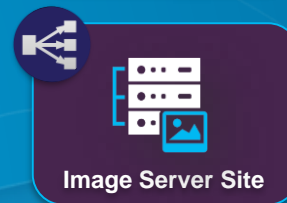


- *Capacity Planning*

- *Architecture*
- *Deployment*
- *Manage Costs*
 - *Environment Availability*
- *Monitor*
- *Update Licenses*
- *Upgrade*

Architecture | ArcGIS

****NEED TO PERFORM CAPACITY PLANNING
TO DESIGN PROPER ARCHITECTURE**



Architecture | ArcGIS

****NEED TO PERFORM CAPACITY PLANNING TO DESIGN PROPER ARCHITECTURE**



ArcGIS Base Enterprise



ArcGIS Server Site



GeoEvent1



GeoAnalytics

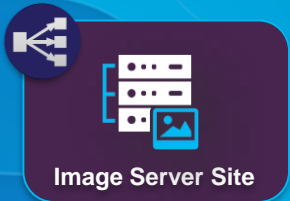
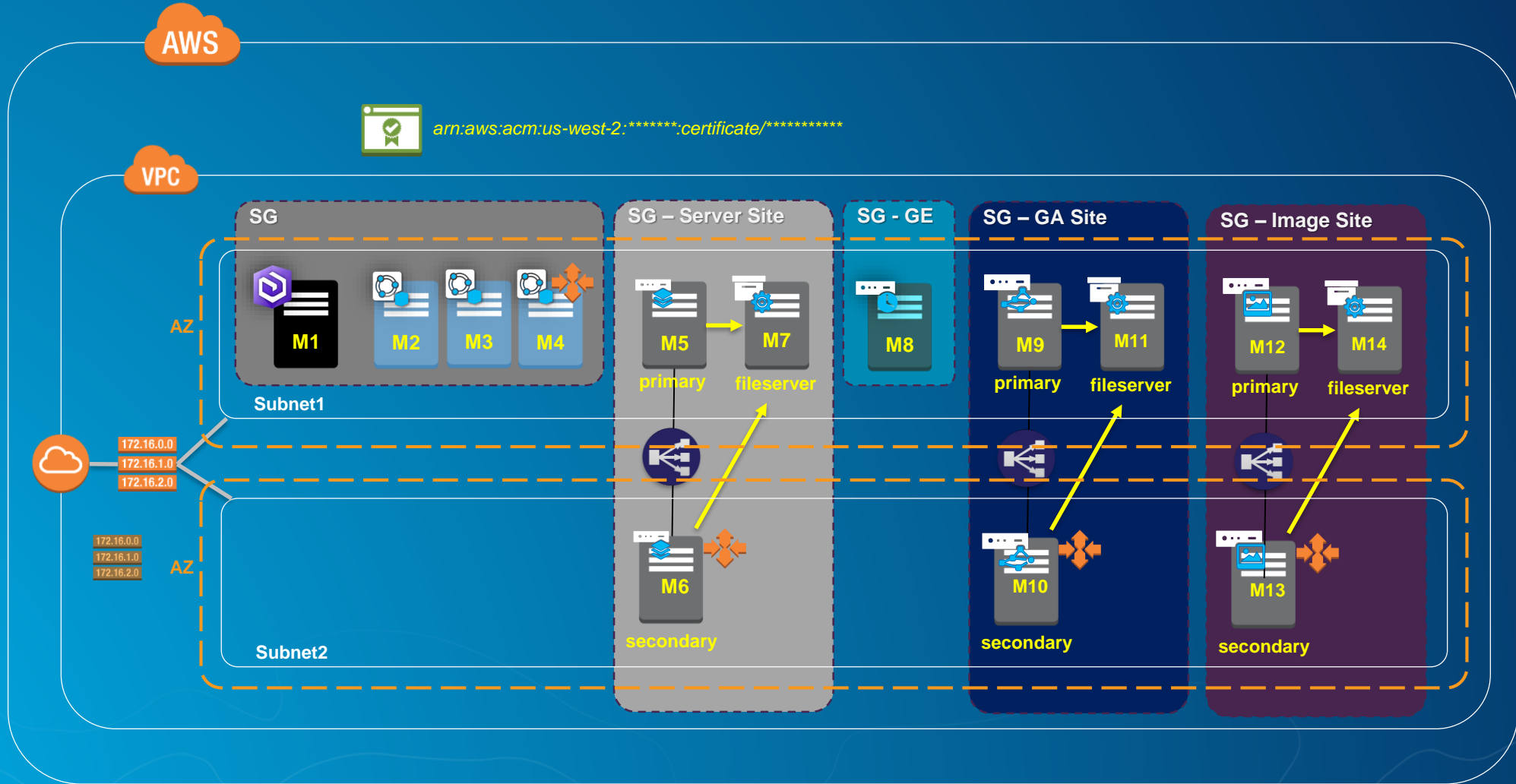


Image Server Site



Architecture | Operating System



Region:

| | vCPU | ECU | Memory (GiB) | Instance Storage (GB) | Windows Usage |
|---|------|-------|--------------|-----------------------|------------------|
| General Purpose - Current Generation | | | | | |
| m5.large | 2 | 10 | 8 | EBS Only | \$0.188 per Hour |
| m5.xlarge | 4 | 15 | 16 | EBS Only | \$0.376 per Hour |
| m5.2xlarge | 8 | 31 | 32 | EBS Only | \$0.752 per Hour |
| m5.4xlarge | 16 | 61 | 64 | EBS Only | \$1.504 per Hour |
| m5.12xlarge | 48 | 173 | 192 | EBS Only | \$4.512 per Hour |
| m5.24xlarge | 96 | 345 | 384 | EBS Only | \$9.024 per Hour |
| m4.large | 2 | 6.5 | 8 | EBS Only | \$0.192 per Hour |
| m4.xlarge | 4 | 13 | 16 | EBS Only | \$0.384 per Hour |
| m4.2xlarge | 8 | 26 | 32 | EBS Only | \$0.768 per Hour |
| m4.4xlarge | 16 | 53.5 | 64 | EBS Only | \$1.536 per Hour |
| m4.10xlarge | 40 | 124.5 | 160 | EBS Only | \$3.84 per Hour |
| m4.16xlarge | 64 | 188 | 256 | EBS Only | \$6.144 per Hour |

Region:

| | vCPU | ECU | Memory (GiB) | Instance Storage (GB) | Linux/UNIX Usage |
|---|------|-------|--------------|-----------------------|------------------|
| General Purpose - Current Generation | | | | | |
| m5.large | 2 | 10 | 8 | EBS Only | \$0.096 per Hour |
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| m5.2xlarge | 8 | 31 | 32 | EBS Only | \$0.384 per Hour |
| m5.4xlarge | 16 | 61 | 64 | EBS Only | \$0.768 per Hour |
| m5.12xlarge | 48 | 173 | 192 | EBS Only | \$2.304 per Hour |
| m5.24xlarge | 96 | 345 | 384 | EBS Only | \$4.608 per Hour |
| m4.large | 2 | 6.5 | 8 | EBS Only | \$0.1 per Hour |
| m4.xlarge | 4 | 13 | 16 | EBS Only | \$0.2 per Hour |
| m4.2xlarge | 8 | 26 | 32 | EBS Only | \$0.4 per Hour |
| m4.4xlarge | 16 | 53.5 | 64 | EBS Only | \$0.8 per Hour |
| m4.10xlarge | 40 | 124.5 | 160 | EBS Only | \$2 per Hour |
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Architecture | Operating System



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| m4.xlarge | 4 | 13 | 16 | EBS Only | \$0.2 per Hour |
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Architecture | Operating System



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| m4.10xlarge | 40 | 124.5 | 160 | EBS Only | \$3.84 per Hour |
| m4.16xlarge | 64 | 188 | 256 | EBS Only | \$6.144 per Hour |

Region:

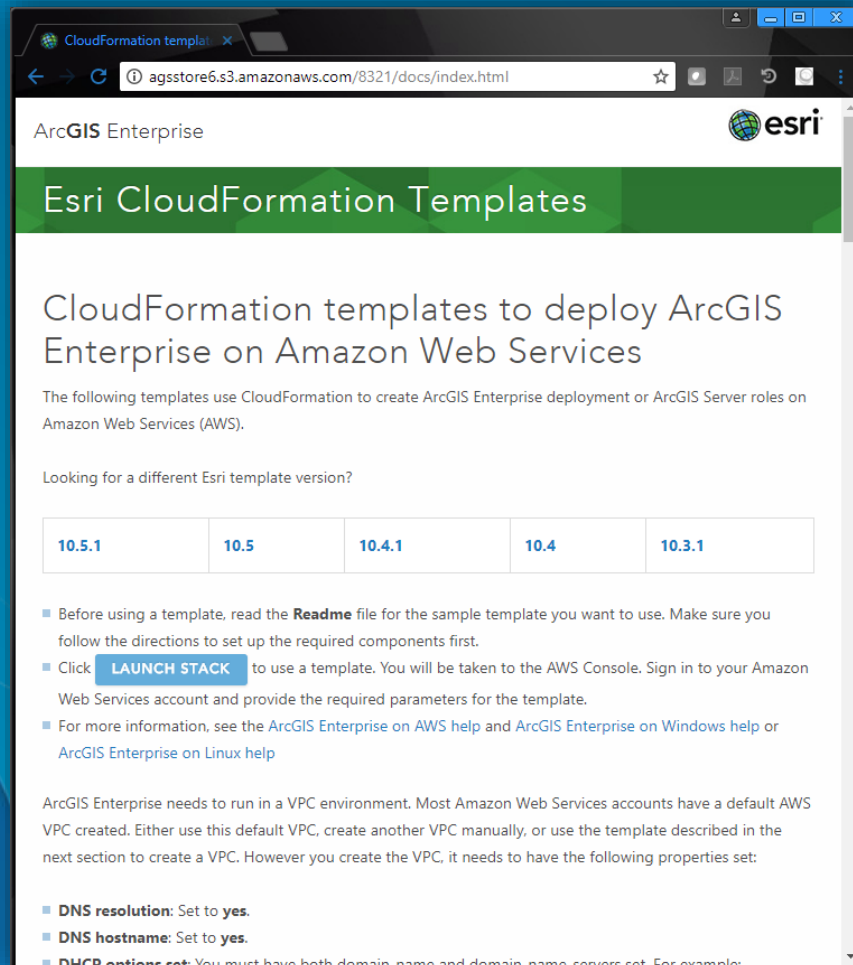
| | vCPU | ECU | Memory (GiB) | Instance Storage (GB) | Linux/UNIX Usage |
|---|------|-------|--------------|-----------------------|------------------|
| General Purpose - Current Generation | | | | | |
| m5.large | 2 | 10 | 8 | EBS Only | \$0.096 per Hour |
| m5.xlarge | 4 | 15 | 16 | EBS Only | \$0.192 per Hour |
| m5.2xlarge | 8 | 31 | 32 | EBS Only | \$0.384 per Hour |
| m5.4xlarge | 16 | 61 | 64 | EBS Only | \$0.768 per Hour |
| m5.12xlarge | 48 | 173 | 192 | EBS Only | \$2.304 per Hour |
| m5.24xlarge | 96 | 345 | 384 | EBS Only | \$4.608 per Hour |
| m4.large | 2 | 6.5 | 8 | EBS Only | \$0.1 per Hour |
| m4.xlarge | 4 | 13 | 16 | EBS Only | \$0.2 per Hour |
| m4.2xlarge | 8 | 26 | 32 | EBS Only | \$0.4 per Hour |
| m4.4xlarge | 16 | 53.5 | 64 | EBS Only | \$0.8 per Hour |
| m4.10xlarge | 40 | 124.5 | 160 | EBS Only | \$2 per Hour |
| m4.16xlarge | 64 | 188 | 256 | EBS Only | \$3.2 per Hour |



- *Architecture*
- *Deployment*
- *Manage Costs*
 - *Environment Availability*
- *Monitor*
- *Update Licenses*
- *Upgrade*

Operational Practices | Deployments

<http://agsstore6.s3.amazonaws.com/8321/docs/index.html>



A screenshot of a web browser displaying the 'Esri CloudFormation Templates' page. The page title is 'CloudFormation templates to deploy ArcGIS Enterprise on Amazon Web Services'. It includes a navigation bar with 'ArcGIS Enterprise' and the Esri logo. Below the title, there is a list of template versions: 10.5.1, 10.5, 10.4.1, 10.4, and 10.3.1. The page contains instructions on how to use the templates, including a 'LAUNCH STACK' button and links to help documentation for various operating systems.

ArcGIS Enterprise

Esri CloudFormation Templates

CloudFormation templates to deploy ArcGIS Enterprise on Amazon Web Services

The following templates use CloudFormation to create ArcGIS Enterprise deployment or ArcGIS Server roles on Amazon Web Services (AWS).

Looking for a different Esri template version?

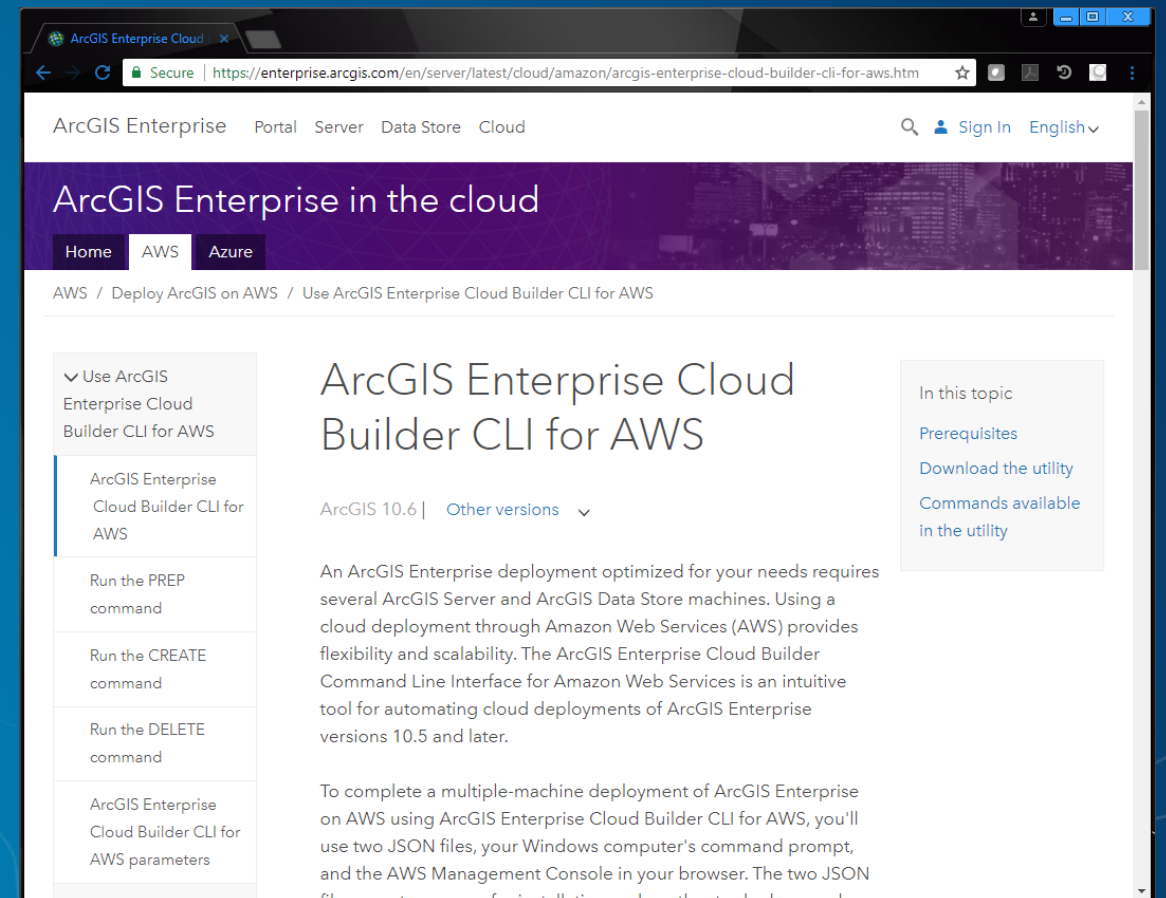
| | | | | |
|------------------------|----------------------|------------------------|----------------------|------------------------|
| 10.5.1 | 10.5 | 10.4.1 | 10.4 | 10.3.1 |
|------------------------|----------------------|------------------------|----------------------|------------------------|

- Before using a template, read the **Readme** file for the sample template you want to use. Make sure you follow the directions to set up the required components first.
- Click **LAUNCH STACK** to use a template. You will be taken to the AWS Console. Sign in to your Amazon Web Services account and provide the required parameters for the template.
- For more information, see the [ArcGIS Enterprise on AWS help](#) and [ArcGIS Enterprise on Windows help](#) or [ArcGIS Enterprise on Linux help](#)

ArcGIS Enterprise needs to run in a VPC environment. Most Amazon Web Services accounts have a default AWS VPC created. Either use this default VPC, create another VPC manually, or use the template described in the next section to create a VPC. However you create the VPC, it needs to have the following properties set:

- DNS resolution:** Set to **yes**.
- DNS hostname:** Set to **yes**.
- DHCP options set:** You must have both domain name and domain name servers set. For example:

<https://enterprise.arcgis.com/en/server/latest/cloud/amazon/arcgis-enterprise-cloud-builder-cli-for-aws.htm>



A screenshot of the ArcGIS Enterprise Cloud Builder CLI for AWS page. The page title is 'ArcGIS Enterprise Cloud Builder CLI for AWS'. It includes a navigation bar with 'ArcGIS Enterprise', 'Portal', 'Server', 'Data Store', and 'Cloud'. Below the title, there is a section for 'ArcGIS Enterprise Cloud Builder CLI for AWS' with a sub-section for 'ArcGIS 10.6 | Other versions'. The page contains instructions on how to use the CLI, including a 'Run the PREP command', 'Run the CREATE command', and 'Run the DELETE command'. It also includes a section for 'ArcGIS Enterprise Cloud Builder CLI for AWS parameters'.

ArcGIS Enterprise | Portal | Server | Data Store | Cloud

ArcGIS Enterprise in the cloud

Home | **AWS** | Azure

AWS / Deploy ArcGIS on AWS / Use ArcGIS Enterprise Cloud Builder CLI for AWS

ArcGIS Enterprise Cloud Builder CLI for AWS

ArcGIS 10.6 | Other versions

- Use ArcGIS Enterprise Cloud Builder CLI for AWS
 - ArcGIS Enterprise Cloud Builder CLI for AWS
 - Run the PREP command
 - Run the CREATE command
 - Run the DELETE command
 - ArcGIS Enterprise Cloud Builder CLI for AWS parameters

In this topic

- Prerequisites
- Download the utility
- Commands available in the utility

An ArcGIS Enterprise deployment optimized for your needs requires several ArcGIS Server and ArcGIS Data Store machines. Using a cloud deployment through Amazon Web Services (AWS) provides flexibility and scalability. The ArcGIS Enterprise Cloud Builder Command Line Interface for Amazon Web Services is an intuitive tool for automating cloud deployments of ArcGIS Enterprise versions 10.5 and later.

To complete a multiple-machine deployment of ArcGIS Enterprise on AWS using ArcGIS Enterprise Cloud Builder CLI for AWS, you'll use two JSON files, your Windows computer's command prompt, and the AWS Management Console in your browser. The two JSON files are used to prepare for installation and another to deploy the

Operational Practices | Deployments



✓ Create/Validate AWS S3 Bucket with necessary files

- Portal license file
- Server license file
- Optional server roles: GeoAnalytics, GeoEvent, Image
- SSL Certificate file



✓ Create VPC

- AWS CLI PREP
- CloudFormation Template



✓ Allocate Elastic IP addresses

- Update DNS Entries with Cname



✓ Create Load-Balancer

- Import/Validate the SSL Certificate exists in the Certificate Manager for the AWS Region
- Use Load-Balancer Template
- Update DNS Entries with Cname



Operational Practices | Deployments



Amazon S3 > arcgis10-6-██████████

Overview Properties

🔍 Type a prefix and press Enter to search. Press ESC to clear.

📁 Upload + Create folder More ▾

| <input type="checkbox"/> | Name ↑ |
|--------------------------|--------------------------|
| <input type="checkbox"/> | Server_Ent_Adv.ecp |
| <input type="checkbox"/> | Server_GeoAnalytics.prvc |
| <input type="checkbox"/> | Server_GeoEvent.prvc |
| <input type="checkbox"/> | Server_Image.prvc |
| <input type="checkbox"/> | portal_200_100.prvc |
| <input type="checkbox"/> | wildcard_bd_esri_com.pfx |

Operational Practices | Deployments



The screenshot displays the AWS VPC console interface, showing a sequence of steps to create and configure an Internet Gateway. The interface is layered, showing the progression from the VPC Dashboard to the Internet Gateway configuration page.

Step 1: VPC Dashboard
Filter by VPC: vpc-2d...
Virtual Private Cloud
Your VPCs
Subnets
Route Tables
Internet Gateways
Egress Only Internet Gateways
DHCP Options Sets
Elastic IPs
Endpoints
Endpoint Services
NAT Gateways
Peering Connections
Security
Network ACLs
Security Groups
VPN Connections
Customer Gateways
Virtual Private Gateways
VPN Connections

Step 2: VPC Dashboard
Filter by VPC: vpc-2d...
Virtual Private Cloud
Your VPCs
Subnets
Route Tables
Internet Gateways
Egress Only Internet Gateways
DHCP Options Sets
Elastic IPs
Endpoints
Endpoint Services
NAT Gateways
Peering Connections
Security
Network ACLs
Security Groups
VPN Connections
Customer Gateways
Virtual Private Gateways
VPN Connections

Step 3: VPC Dashboard
Filter by VPC: vpc-2d...
Virtual Private Cloud
Your VPCs
Subnets
Route Tables
Internet Gateways
Egress Only Internet Gateways
DHCP Options Sets
Elastic IPs
Endpoints
Endpoint Services
NAT Gateways
Peering Connections
Security
Network ACLs
Security Groups
VPN Connections
Customer Gateways
Virtual Private Gateways
VPN Connections

Step 4: VPC Dashboard
Filter by VPC: vpc-2d...
Virtual Private Cloud
Your VPCs
Subnets
Route Tables
Internet Gateways
Egress Only Internet Gateways
DHCP Options Sets
Elastic IPs
Endpoints
Endpoint Services
NAT Gateways
Peering Connections
Security
Network ACLs
Security Groups
VPN Connections
Customer Gateways
Virtual Private Gateways
VPN Connections

Step 5: Internet Gateway Configuration
igw-f37bc497 | utilities-dev-igw
Summary | Tags
ID: igw-f37bc497 | utilities-dev-igw
Attached VPC ID: vpc-2d... | Utilities-dev-106-vpc
State: attached
Attachment state: available

Operational Practices | Deployments



EC2 Dashboard

Events

Tags

Reports

Limits

INSTANCES

- Instances
- Launch Templates
- Spot Requests
- Reserved Instances
- Dedicated Hosts

IMAGES

- AMIs

Allocate new address

Actions

search : 54.24 Add filter

| Name | Elastic IP | Allocation ID |
|------|------------|---------------|
| | 54.24 | eipalloc-f |
| | 54.24 | eipalloc-5 |



Operational Practices | Deployments



Launch Templates
Spot Requests
Reserved Instances
Dedicated Hosts

IMAGES
AMIs
Bundle Tasks

ELASTIC BLOCK STORE

Create Load Balancer Actions

search : vpc-2 Add filter

| <input type="checkbox"/> | Name | DNS name | State | VPC ID | Availability Zones | Type |
|-------------------------------------|----------------------|-------------------------|-------|--------|------------------------|---------|
| <input type="checkbox"/> | Utilities-dev-ELB-MB | Utilities-dev-ELB-MBHD | | vpc-2d | us-west-1b, us-west-1c | classic |
| <input type="checkbox"/> | Utilities-dev-ELB-PF | Utilities-dev-ELB-PFIF8 | | vpc-2d | us-west-1b, us-west-1c | classic |
| <input type="checkbox"/> | Utilities-dev-ELB-WZ | Utilities-dev-ELB-WZ9P | | vpc-2d | us-west-1b, us-west-1c | classic |
| <input checked="" type="checkbox"/> | Utilities-dev-ELB-1Q | Utilities-dev-ELB-1QQA | | vpc-2d | us-west-1b, us-west-1c | classic |



Operational Practices | Deployments



Request a certificate | Import a certificate | Actions

« < Viewing 1 to 1 of 1 certificates > »


| Name | Domain name | Additional names | Status | Type | In use? |
|---------------|---------------|------------------|--------|----------|---------|
| *.bd.esri.com | *.bd.esri.com | bd.esri.com | Issued | Imported | Yes |

Status

Status: Issued
Detailed status: The cert was imported at 2017-08-16T20:13:28UTC [Reimport certificate](#)

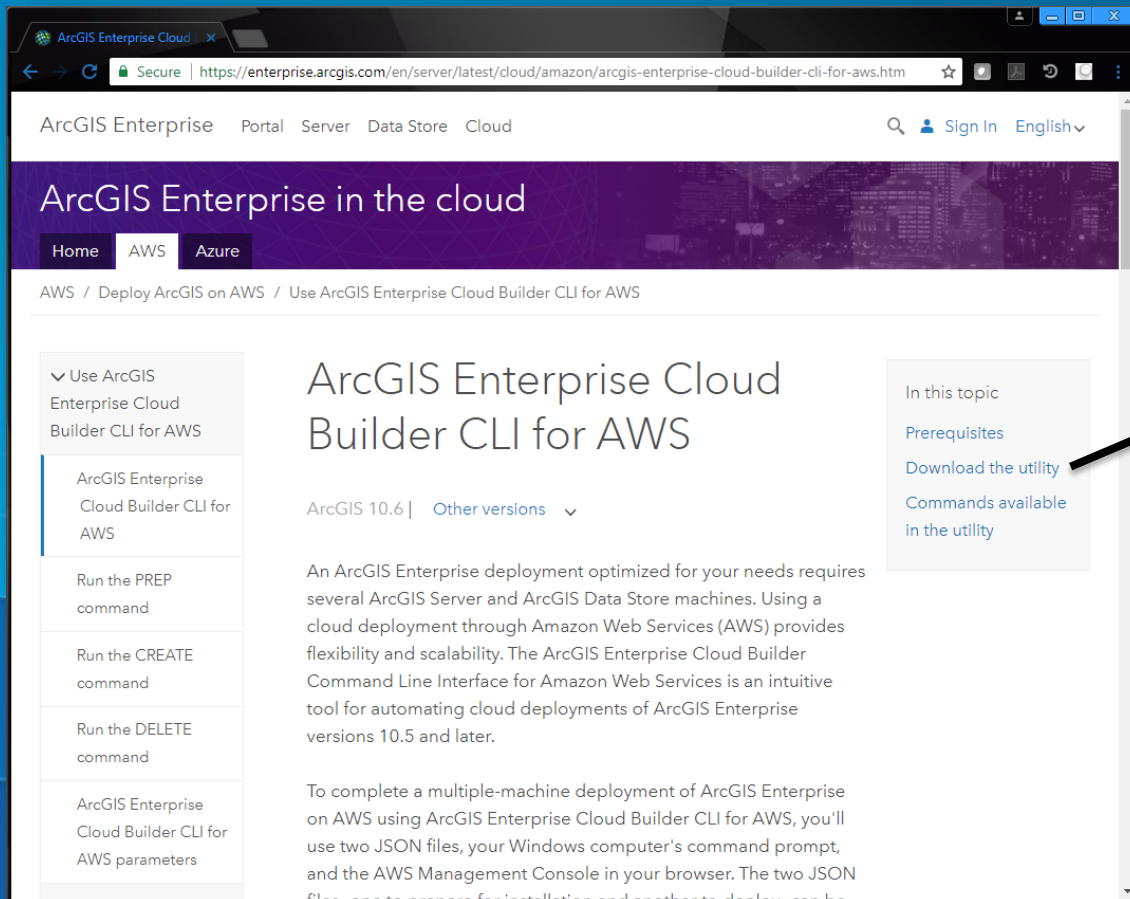
Details

| | | | |
|----------------------------|----------------------------------|---------------------|---|
| Type | Imported | Imported at | 2017-08-16T20:13:28UTC |
| In use? | Yes | Not after | 2018-10-10T12:00:00UTC |
| Domain name | *.bd.esri.com | Expires in | 230 Days |
| Number of additional names | 1 | Public key info | RSA 2048-bit |
| Additional names | bd.esri.com | Signature algorithm | SHA [REDACTED] |
| Identifier | [REDACTED] | ARN | arn:aws:acm:us-east-1:30[REDACTED]:certificate/92[REDACTED] |
| Serial number | [REDACTED] | | [REDACTED]35 |
| Associated resources | arn:aws:elasticloadbalancing:us- | | |



Operational Practices | Deployments

- *ArcGIS Enterprise Cloud Builder CLI for AWS*



The screenshot shows a web browser window displaying the ArcGIS Enterprise Cloud Builder CLI for AWS documentation page. The page title is "ArcGIS Enterprise Cloud Builder CLI for AWS" and it is for ArcGIS 10.6. The page content includes a table of contents on the left with items like "Run the PREP command", "Run the CREATE command", and "Run the DELETE command". The main content area has a heading "ArcGIS Enterprise Cloud Builder CLI for AWS" and a sub-heading "ArcGIS 10.6 | Other versions". The main text describes the utility and its use for automating cloud deployments. A table of contents on the right lists "In this topic" with links for "Prerequisites", "Download the utility", and "Commands available in the utility". An arrow points from the "Download the utility" link to a callout box on the right.

Download the utility

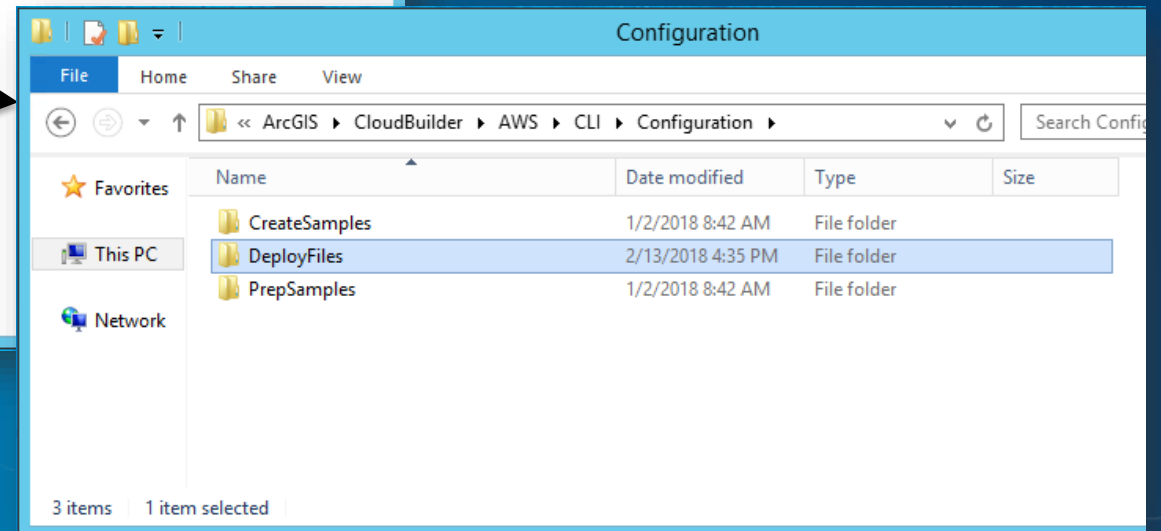
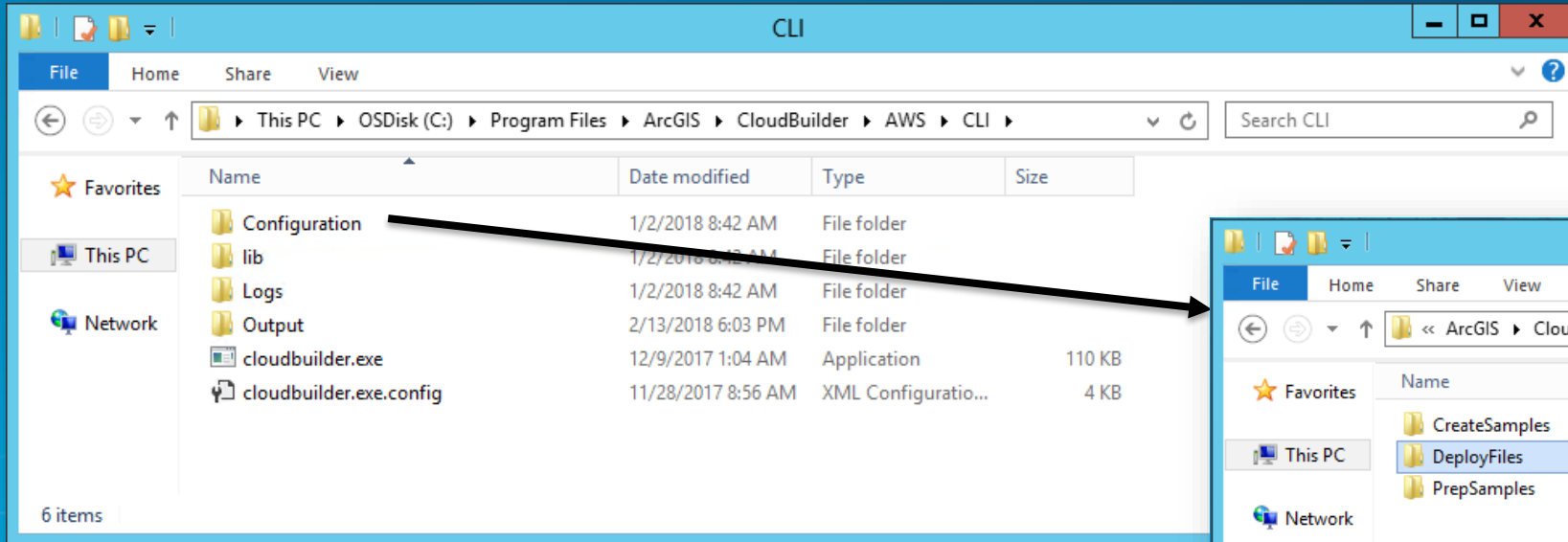
You can obtain the ArcGIS Enterprise Cloud Builder CLI for AWS utility from My Esri. Download the file and extract it to your local drive. The default location is `C:\Program Files\ArcGIS\CloudBuilder\AWS\CLI`, but you can specify a different location for the extracted files if you are a Windows administrator.

Note:

After extracting `cloudbuilder.exe` inside any folder on local disk, make sure the user running the ArcGIS Enterprise Cloud Builder CLI for AWS utility has recursive write access to the Logs and Output folders.

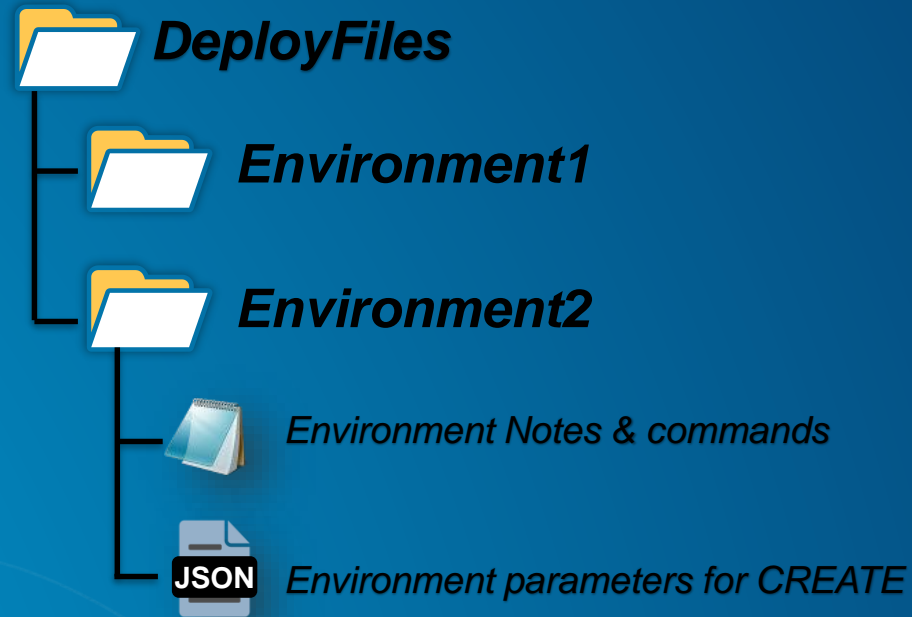
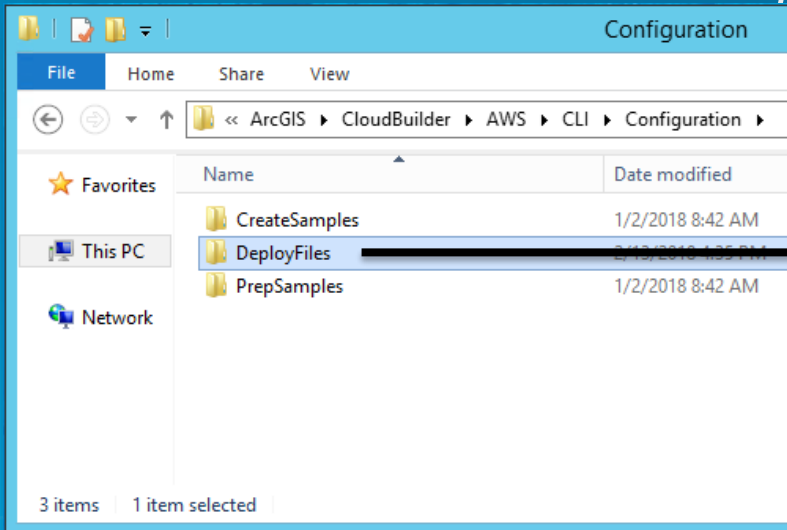
Operational Practices | Deployments

- *ArcGIS Enterprise Cloud Builder CLI for AWS*



Operational Practices | Deployments

- *ArcGIS Enterprise Cloud Builder CLI for AWS*



Operational Practices | Deployments



```
CMD_LINE_COMMAND.txt - Notepad
File Edit Format View Help
>>CHANGE DIRECTORY:
cd C:\Program Files\ArcGIS\CloudBuilder\AWS\CLI

>>Environment2 - MyDeployment - [Ubuntu]
>>Base Enterprise, Server, GeoEvent, GeoAnalytics, RasterAnalytics

VPCId: vpc-11c11111

BaseEnterprise
  URL: mysitename.bd.esri.com
  IP : 55.55.555.55
  EIP: eipalloc-e11111d1

Server |
  URL: myarcgisserversite.bd.esri.com
  ELB: ENV2-106-ELB-1A1B1CD1E11F1-11111111.us-west-2.elb.amazonaws.com
  ELBName: elbname-ELB-1A1B1CD1E11F1

GeoEvent
  URL: geoevent.bd.esri.com
  IP : 52.38.134.35
  EIP: eipalloc-e22222d2

GeoAnalytics
  URL: geoanalytics.bd.esri.com
  ELB: ENV2-106-ELB-2A2B2CD2E22F2-22222222.us-west-2.elb.amazonaws.com
  ELBName: elbname-ELB-2A2B2CD2E22F2

RasterAnalytics
  URL: raster.bd.esri.com
  ELB: ENV2-106-ELB-3A3B3CD3E33F3-33333333.us-west-2.elb.amazonaws.com
  ELBName: elbname-ELB-3A3B3CD3E33F3
  s3Bucket: yourbucket

>>CREATE CMD:
cloudbuilder.exe CREATE -j Configuration\DeployFiles\Environment2\ArcGISentENV.json
```


Operational Practices | Deployments



```
{
  "DeploymentDetails":{
    "DeploymentName": "MyDeployment",
    "ArcGISVersion": "10.6",
    "OperatingSystem": "Ubuntu"
  },
  "AWSCredentials":{
    "AWSProfileName": "myprofile",
    "AWSRegion": "us-west-2"
  },
  "CloudFormationParameters":{
    "Default" :{
      "VPCId": " vpc-11c11111 ",
      "Subnet1": "subnet-123456",
      "Subnet2": "subnet-98760",
      "DriveSizeRoot": "100",
      "DriveSizeData": "200",
      "KeyName": "MyAWSKeyName",
      "FSInstanceType": "m4.large",
      "ASInstanceType": "m4.2xlarge",
      "SecondaryInstances": "0",
      "BDSInstanceType": "r4.xlarge",
      "BDSInstances": "0",
      "DBEngine": "none",
      "DBInstanceClass": "db.m4.large",
      "DBAllocatedStorage": "200",
      "DeploymentBucket": "myS3bucket",
      "ServerLicenseFile": "Server.ecp",
      "PortalLicenseFile": "Portal.prcv",
      "StoreType": "FileSystem",
      "SiteAdmin": "admin",
      "SiteAdminPassword": "Password1",
      "RunAsUserPassword": "Run_As_Pa$$w0rd",
      "SSLCertificateFile": "mySSLCertificate.pfx",
      "SSLCertPassword": "SSLCertPassw0rd",
      "SSLCertificateARN": "arn:aws:acm:us-west-2:***:certificate/**",
      "PostInstallationScript": "none"
    }
  },
}
```

```
"BaseEnterprise":{
  "SiteEIPAllocationID": "eipalloc-e11111d1",
  "SiteDomain": "mysitename.bd.esri.com",
  "InstanceType": "m4.xlarge",
  "Type": "AllInOne"
},
"Server":{
  "ELBName": "elbname-ELB-1A1B1CD1E11F1",
  "SiteDomain": "myarcgisserversite.bd.esri.com",
  "ServerLicenseFile": "Server.ecp",
  "SecondaryInstances": "1",
  "Federate":true
},
"GeoEvent":{
  "SiteEIPAllocationID": "eipalloc-e22222d2",
  "SiteDomain": "geoevent.bd.esri.com",
  "ServerLicenseFile": "Server_GeoEvent.prcv",
  "Federate":true
},
"GeoAnalytics":{
  "ELBName": "elbname-ELB-2A2B2CD2E22F2",
  "SiteDomain": "geoanalytics.bd.esri.com",
  "ServerLicenseFile": "Server_GeoAnalytics.prcv",
  "SecondaryInstances": "1",
  "Federate":true
},
"RasterAnalytics":{
  "ELBName": "elbname-ELB-3A3B3CD3E33F3",
  "SiteDomain": "raster.bd.esri.com",
  "CloudStoreS3BucketPath": "yourbucket/yourfolder",
  "ServerLicenseFile": "Server_Image.prcv",
  "SecondaryInstances": "1",
  "Federate":true
}
},
"DNSParameters":{
  "AWSR53ZoneId": ""
}
}
```

Operational Practices | Deployments



```
{
  "DeploymentDetails":{
    "DeploymentName": "MyDeployment",
    "ArcGISVersion": "10.6",
    "OperatingSystem": "Ubuntu"
  },
  "AWSCredentials":{
    "AWSProfileName": "myprofile",
    "AWSRegion": "us-west-2"
  },
  "CloudFormationParameters":{
    "Default" :{
      "VPCId": " vpc-11c11111 ",
      "Subnet1": "subnet-123456",
      "Subnet2": "subnet-98760",
      "DriveSizeRoot": "100",
      "DriveSizeData": "200",
      "KeyName": "MyAWSKeyName",
      "FSInstanceType": "m4.large",
      "ASInstanceType": "m4.2xlarge",
      "SecondaryInstances": "0",
      "BDSInstanceType": "r4.xlarge",
      "BDSInstances": "0",
      "DBEngine": "none",
      "DBInstanceClass": "db.m4.large",
      "DBAllocatedStorage": "200",
      "DeploymentBucket": "myS3bucket",
      "ServerLicenseFile": "Server.ecp",
      "PortalLicenseFile": "Portal.prvc",
      "StoreType": "FileSystem",
      "SiteAdmin": "admin",
      "SiteAdminPassword": "Password1",
      "RunAsUserPassword": "Run_As_Pa$$w0rd",
      "SSLCertificateFile": "mySSLCertificate.pfx",
      "SSLCertPassword": "SSLCertPassw0rd",
      "SSLCertificateARN": "arn:aws:acm:us-west-2:***:certificate/**",
      "PostInstallationScript": "none"
    },

```

| Stack Name | Created Time |
|-----------------------------------|----------------------|
| MyDeployment-BaseEnterpriseStack | 2018-01-02 16:58: |
| MyDeployment-ServerStack | 2018-01-02 16:58: |
| MyDeployment-GeoEventStack | 2018-01-02 16:58: |
| MyDeployment-GeoAnalyticsStack | 2018-01-02 16:58:m", |
| MyDeployment-RasterAnalyticsStack | 2018-01-02 16:58: |

```
},
  "GeoEvent":{
    "SiteEIPAllocationID": "eipalloc-e2222d2",
    "SiteDomain": "geoevent.bd.esri.com",
    "ServerLicenseFile": "Server_GeoEvent.prvc",
    "Federate":true
  },
  "GeoAnalytics":{
    "ELBName": "elbname-ELB-2A2B2CD2E22F2",
    "SiteDomain": "geoanalytics.bd.esri.com",
    "ServerLicenseFile": "Server_GeoAnalytics.prvc",
    "SecondaryInstances": "1",
    "Federate":true
  },
  "RasterAnalytics":{
    "ELBName": "elbname-ELB-3A3B3CD3E33F3",
    "SiteDomain": "raster.bd.esri.com",
    "CloudStoreS3BucketPath": "yourbucket/yourfolder",
    "ServerLicenseFile": "Server_Image.prvc",
    "SecondaryInstances": "1",
    "Federate":true
  }
},
  "DNSParameters":{
    "AWSR53ZoneId": ""
  }
}
```

Operational Practices | Deployments



```
{
  "DeploymentDetails":{
    "DeploymentName": "MyDeployment",
    "ArcGISVersion": "10.6",
    "OperatingSystem": "Ubuntu"
  },
  "AWSCredentials":{
    "AWSProfileName": "myprofile",
    "AWSRegion": "us-west-2"
  },
  "CloudFormationParameters":{
    "Default" :{
      "VPCId": " vpc-11c11111 ",
      "Subnet1": "subnet-123456",
      "Subnet2": "subnet-98760",
      "DriveSizeRoot": "100",
      "DriveSizeData": "200",
      "KeyName": "MyAWSKeyName",
      "FSInstanceType": "m4.large",
      "ASInstanceType": "m4.2xlarge",
      "SecondaryInstances": "0",
      "BDSInstanceType": "r4.xlarge",
      "BDSInstances": "0",
      "DBEngine": "none",
      "DBInstanceClass": "db.m4.large",
      "DBAllocatedStorage": "200",
      "DeploymentBucket": "myS3bucket",
      "ServerLicenseFile": "Server.ecp",
      "PortalLicenseFile": "Portal.prvc",
      "StoreType": "FileSystem",
      "SiteAdmin": "admin",
      "SiteAdminPassword": "Password1",
      "RunAsUserPassword": "Run_As_Pa$$w0rd",
      "SSLCertificateFile": "mySSLCertificate.pfx",
      "SSLCertPassword": "SSLCertPassw0rd",
      "SSLCertificateARN": "arn:aws:acm:us-west-2:***:certificate/**",
      "PostInstallationScript": "none"
    },

```



```
"BaseEnterprise":{
  "SiteEIPAllocationID": "eipalloc-e11111d1",
  "SiteDomain": "mysitename.bd.esri.com",
  "InstanceType": "m4.xlarge",
  "Type": "AllInOne"
},
"Server":{
  "ELBName": "elbname-ELB-1A1B1CD1E11F1",
  "SiteDomain": "myarcgisserversite.bd.esri.com",
  "ServerLicenseFile": "Server.ecp",
  "SecondaryInstances": "1",
  "Federate":true
},
"GeoEvent":{
  "SiteEIPAllocationID": "eipalloc-e22222d2",
  "SiteDomain": "geoevent.bd.esri.com",
  "ServerLicenseFile": "Server_GeoEvent.prvc",
  "Federate":true
},
"GeoAnalytics":{
  "ELBName": "elbname-ELB-2A2B2CD2E22F2",
  "SiteDomain": "geoanalytics.bd.esri.com",
  "ServerLicenseFile": "Server_GeoAnalytics.prvc",
  "SecondaryInstances": "1",
  "Federate":true
},
"RasterAnalytics":{
  "ELBName": "elbname-ELB-3A3B3CD3E33F3",
  "SiteDomain": "raster.bd.esri.com",
  "CloudStoreS3BucketPath": "yourbucket/yourfolder",
  "ServerLicenseFile": "Server_Image.prvc",
  "SecondaryInstances": "1",
  "Federate":true
},
"DNSParameters":{
  "AWSR53ZoneId": ""
}
}
```

Operational Practices | Deployments



```
{
  "DeploymentDetails":{
    "DeploymentName": "MyDeployment",
    "ArcGISVersion": "10.6",
    "OperatingSystem": "Ubuntu"
  },
  "AWSCredentials":{
    "AWSProfileName": "myprofile",
    "AWSRegion": "us-west-2"
  },
  "CloudFormationParameters":{
    "Default" :{
      "VPCId": " vpc-11c11111 ",
      "Subnet1": "subnet-123456",
      "Subnet2": "subnet-98760",
      "DriveSizeRoot": "100",
      "DriveSizeData": "200",
      "KeyName": "MyAWSKeyName",
      "FSInstanceType": "m4.large",
      "ASInstanceType": "m4.2xlarge",
      "SecondaryInstances": "0",
      "BDSInstanceType": "r4.xlarge",
      "BDSInstances": "0",
      "DBEngine": "none",
      "DBInstanceClass": "db.m4.large",
      "DBAllocatedStorage": "200",
      "DeploymentBucket": "myS3bucket",
      "ServerLicenseFile": "Server.ecp",
      "PortalLicenseFile": "Portal.prvc",
      "StoreType": "FileSystem",
      "SiteAdmin": "admin",
      "SiteAdminPassword": "Password1",
      "RunAsUserPassword": "Run_As_Pa$$w0rd",
      "SSLCertificateFile": "mySSLCertificate.pfx",
      "SSLCertPassword": "SSLCertPassw0rd",
      "SSLCertificateARN": "arn:aws:acm:us-west-2:***:certificate/**",
      "PostInstallationScript": "none"
    },
    "VPC":{
      "VPCId": " vpc-11c11111 ",
      "Subnet1": "subnet-123456",
      "Subnet2": "subnet-98760"
    },
    "Key":{
      "KeyName": "MyAWSKeyName"
    },
    "Bucket":{
      "DeploymentBucket": "myS3bucket"
    },
    "Certificate":{
      "SSLCertificateARN": "arn:aws:acm:us-west-2:***:certificate/**"
    }
  }
}
```



```
"BaseEnterprise":{
  "SiteEIPAllocationID": "eipalloc-e11111d1",
  "SiteDomain": "mysitename.bd.esri.com",
  "InstanceType": "m4.xlarge",
  "Type": "AllInOne"
},
"Server":{
  "ELBName": "elbname-ELB-1A1B1CD1E11F1",
  "SiteDomain": "myarcgisserversite.bd.esri.com",
  "ServerLicenseFile": "Server.ecp",
  "SecondaryInstances": "1",
  "Federate":true
},
"GeoEvent":{
  "SiteEIPAllocationID": "eipalloc-e2222d2",
  "SiteDomain": "geoevent.bd.esri.com",
  "ServerLicenseFile": "Server_GeoEvent.prvc",
  "Federate":true
},
"GeoAnalytics":{
  "ELBName": "elbname-ELB-2A2B2CD2E22F2",
  "SiteDomain": "geoanalytics.bd.esri.com",
  "ServerLicenseFile": "Server_GeoAnalytics.prvc",
  "SecondaryInstances": "1",
  "Federate":true
},
"RasterAnalytics":{
  "ELBName": "elbname-ELB-3A3B3CD3E33F3",
  "SiteDomain": "raster.bd.esri.com",
  "CloudStoreS3BucketPath": "yourbucket/yourfolder",
  "ServerLicenseFile": "Server_Image.prvc",
  "SecondaryInstances": "0",
  "Federate":true
},
"DNSParameters":{
  "AWSR53ZoneId": ""
}
}
```

Operational Practices | Deployments



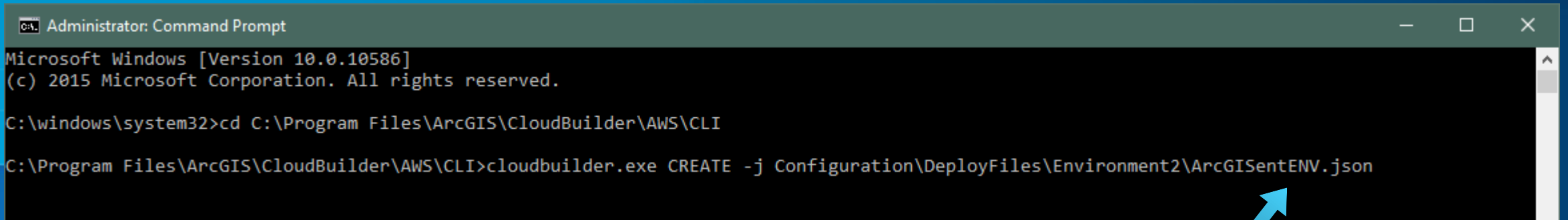
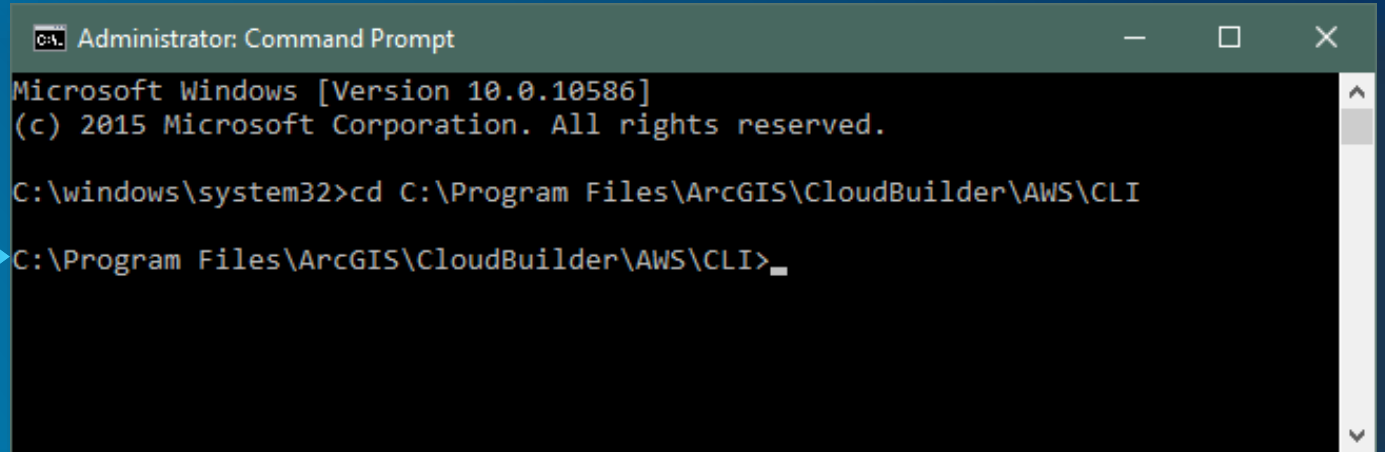
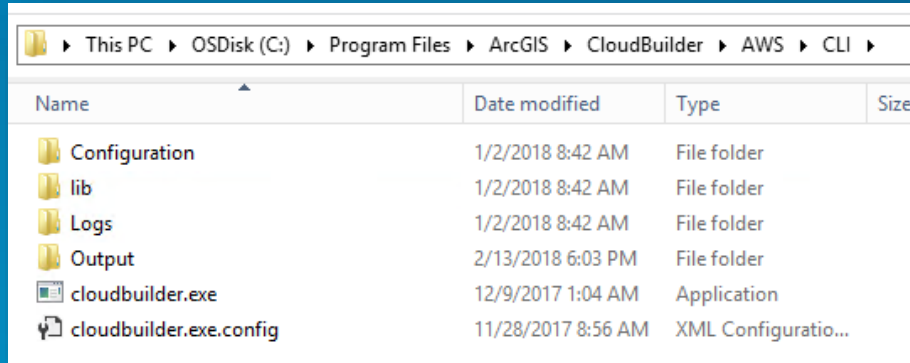
```
{
  "DeploymentDetails":{
    "DeploymentName": "MyDeployment",
    "ArcGISVersion": "10.6",
    "OperatingSystem": "Ubuntu"
  },
  "AWSCredentials":{
    "AWSProfileName": "myprofile",
    "AWSRegion": "us-west-2"
  },
  "CloudFormationParameters":{
    "Default" :{
      "VPCId": " vpc-11c11111 ",
      "Subnet1": "subnet-123456",
      "Subnet2": "subnet-98760",
      "DriveSizeRoot": "100",
      "DriveSizeData": "200",
      "KeyName": "MyAWSKeyName",
      "FSInstanceType": "m4.large",
      "ASInstanceType": "m4.2xlarge",
      "SecondaryInstances": "0",
      "BDSInstanceType": "r4.xlarge",
      "BDSInstances": "0",
      "DBEngine": "none",
      "DBInstanceClass": "db.m4.large",
      "DBAllocatedStorage": "200",
      "DeploymentBucket": "myS3bucket",
      "ServerLicenseFile": "Server.ecp",
      "PortalLicenseFile": "Portal.prvc",
      "StoreType": "FileSystem",
      "SiteAdmin": "admin",
      "SiteAdminPassword": "Password1",
      "RunAsUserPassword": "Run_As_Pa$$w0rd",
      "SSLCertificateFile": "mySSLCertificate.pfx",
      "SSLCertPassword": "SSLCertPassw0rd",
      "SSLCertificateARN": "arn:aws:acm:us-west-2:***:certificate/**",
      "PostInstallationScript": "none"
    },
  }
}
```



```
"BaseEnterprise":{
  "SiteEIPAllocationID": "eipalloc-e11111d1",
  "SiteDomain": "mysitename.bd.esri.com",
  "InstanceType": "m4.xlarge",
  "Type": "AllInOne"
},
"Server":{
  "ELBName": "elbname-ELB-1A1B1CD1E11F1",
  "SiteDomain": "myarcgisserversite.bd.esri.com",
  "ServerLicenseFile": "Server.ecp",
  "SecondaryInstances": "1",
  "Federate":true
},
"GeoEvent":{
  "SiteEIPAllocationID": "eipalloc-e22222d2",
  "SiteDomain": "geoevent.bd.esri.com",
  "ServerLicenseFile": "Server_GeoEvent.prvc",
  "Federate":true
},
"GeoAnalytics":{
  "ELBName": "elbname-ELB-2A2B2CD2E22F2",
  "SiteDomain": "geoanalytics.bd.esri.com",
  "ServerLicenseFile": "Server_GeoAnalytics.prvc",
  "SecondaryInstances": "1",
  "Federate":true
},
"RasterAnalytics":{
  "ELBName": "elbname-ELB-3A3B3CD3E33F3",
  "SiteDomain": "raster.bd.esri.com",
  "CloudStoreS3BucketPath": "yourbucket/yourfolder",
  "ServerLicenseFile": "Server_Image.prvc",
  "SecondaryInstances": "1",
  "Federate":true
},
"DNSParameters":{
  "AWSR53ZoneId": ""
}
}
```



Operational Practices | Deployments



Operational Practices | Deployments



| Stack Name | Created Time | Status | Description |
|-----------------------------------|------------------------------|-----------------|---|
| MyDeployment-BaseEnterpriseStack | 2018-01-02 16:58:13 UTC-0800 | CREATE_COMPLETE | ArcGIS CloudFormation Template: Provision |
| MyDeployment-ServerStack | 2018-01-02 16:58:15 UTC-0800 | CREATE_COMPLETE | ArcGIS CloudFormation Template: Provision |
| MyDeployment-GeoEventStack | 2018-01-02 16:58:17 UTC-0800 | CREATE_COMPLETE | ArcGIS CloudFormation Template: Provision |
| MyDeployment-GeoAnalyticsStack | 2018-01-02 16:58:19 UTC-0800 | CREATE_COMPLETE | ArcGIS CloudFormation Template: Provision |
| MyDeployment-RasterAnalyticsStack | 2018-01-02 16:58:21 UTC-0800 | CREATE_COMPLETE | ArcGIS CloudFormation Template: Provision |

Operational Practices | Deployments

Servers

You can add ArcGIS Server sites to your portal to achieve a single-sign-on experience, share items, and optionally host services. A server that has been added to a portal is called a federated server.

Federated Servers



Add one or more servers to your portal.

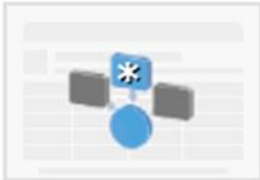
VALIDATE SERVERS

ADD SERVER

Servers

- ✓ <https://mysitename.bd.esri.com/server>
- ✓ <https://myarcgisserversite.bd.esri.com/arcgis>
- ✓ <https://geoevent.bd.esri.com/server>
- ✓ <https://geoanalytics.bd.esri.com/arcgis>
- ✓ <https://raster.bd.esri.com/arcgis>

Hosting Server



Optionally choose one of your servers to act as your portal's hosting server. Your portal members will be able to publish services to this server. ArcGIS Server's Managed Database must be configured on the site before it can be designated as the portal's hosting server.

▾

Operational Practices | Deployments



EC2 Dashboard

Events

Tags

Reports

Limits

INSTANCES

Instances

Launch Templates

Spot Requests

Reserved Instances

Dedicated Hosts

IMAGES

AMIs

Bundle Tasks

ELASTIC BLOCK STORE

Launch Instance

Connect

Actions

search : vpc-2d [redacted] add filter

| Name | ArcGIS Version | Instance ID | Instance State | Status Checks | IPv4 Public IP |
|--|----------------|----------------|----------------|---------------|-----------------|
| <input type="checkbox"/> cliUtilitiesDevEnt-BaseEnterpriseStack | 10.6.0 | i-03[redacted] | running | 2/2 checks... | 54.24[redacted] |
| <input type="checkbox"/> cliUtilitiesDevEnt-BaseEnterpriseStack-bds | 10.6.0 | i-00[redacted] | running | 2/2 checks... | 18.14[redacted] |
| <input type="checkbox"/> cliUtilitiesDevEnt-BaseEnterpriseStack-bds | 10.6.0 | i-0b[redacted] | running | 2/2 checks... | 54.18[redacted] |
| <input type="checkbox"/> cliUtilitiesDevEnt-GeoAnalyticsStack-fileserver | 10.6.0 | i-03[redacted] | running | 2/2 checks... | 13.57[redacted] |
| <input type="checkbox"/> cliUtilitiesDevEnt-GeoAnalyticsStack-primary | 10.6.0 | i-09[redacted] | running | 2/2 checks... | 13.57[redacted] |
| <input type="checkbox"/> cliUtilitiesDevEnt-GeoEventStack | 10.6.0 | i-08[redacted] | running | 2/2 checks... | 54.24[redacted] |
| <input type="checkbox"/> cliUtilitiesDevEnt-ServerStack-fileserver | 10.6.0 | i-0f[redacted] | running | 2/2 checks... | 54.21[redacted] |
| <input type="checkbox"/> cliUtilitiesDevEnt-ServerStack-primary | 10.6.0 | i-00[redacted] | running | 2/2 checks... | 54.19[redacted] |
| <input type="checkbox"/> cliUtilitiesDevEnt-ServerStack-secondary | 10.6.0 | i-00[redacted] | running | 2/2 checks... | 54.19[redacted] |
| <input type="checkbox"/> cliUtilitiesDevUN-ServerStack-fileserver | 10.6.0 | i-05[redacted] | running | 2/2 checks... | 18.14[redacted] |

Operational Practices | Deployments



Launch Templates
Spot Requests
Reserved Instances
Dedicated Hosts

IMAGES
AMIs
Bundle Tasks

ELASTIC BLOCK STORE
Volumes
Snapshots

NETWORK & SECURITY
Security Groups
Elastic IPs
Placement Groups
Key Pairs
Network Interfaces

LOAD BALANCING
Load Balancers
Target Groups

AUTO SCALING
Launch Configurations
Auto Scaling Groups

SYSTEMS MANAGER SERVICES
Run Command

Create Load Balancer Actions

search : vpc-2 Add filter

| Name | DNS name | State | VPC ID | Availability Zones | Type |
|-------------------------|-------------------------|-----------|--------|------------------------|---------|
| Utilities-dev-ELB-MBHD | Utilities-dev-ELB-MBHD | onaws.com | vpc-2d | us-west-1b, us-west-1c | classic |
| Utilities-dev-ELB-PFIF8 | Utilities-dev-ELB-PFIF8 | laws.com | vpc-2d | us-west-1b, us-west-1c | classic |
| Utilities-dev-ELB-WZ9P | Utilities-dev-ELB-WZ9P | onaws.com | vpc-2d | us-west-1b, us-west-1c | classic |
| Utilities-dev-ELB-1QQA | Utilities-dev-ELB-1QQA | onaws.com | vpc-2d | us-west-1b, us-west-1c | classic |

Load balancer: Utilities-dev-ELB-1QQAQ31R14NJ

Description Instances Health Check Listeners Monitoring Tags Migration

Connection Draining: Disabled (Edit)

Edit Instances

| Instance ID | Name | Availability Zone | Status | Actions |
|-------------|---|-------------------|-------------|---------------------------|
| i-0c5a | ciUtilitiesDevEnt-ServerStack-primary | us-west-1b | InService ⓘ | Remove from Load Balancer |
| i-0040 | ciUtilitiesDevEnt-ServerStack-secondary | us-west-1c | InService ⓘ | Remove from Load Balancer |

Edit Availability Zones

| Availability Zone | Subnet ID | Subnet CIDR | Instance Count | Healthy? | Actions |
|-------------------|-----------------|-------------|----------------|----------|---------------------------|
| us-west-1b | subnet-e129a186 | 10.0.0.0/24 | 1 | Yes | Remove from Load Balancer |
| us-west-1c | subnet-da8e5581 | 10.0.1.0/24 | 1 | Yes | Remove from Load Balancer |

Operational Practices | Deployments



Launch Templates
Spot Requests
Reserved Instances
Dedicated Hosts

IMAGES
AMIs
Bundle Tasks

ELASTIC BLOCK STORE
Volumes
Snapshots

NETWORK & SECURITY
Security Groups
Elastic IPs
Placement Groups
Key Pairs
Network Interfaces

LOAD BALANCING
Load Balancers
Target Groups

AUTO SCALING
Launch Configurations
Auto Scaling Groups

SYSTEMS MANAGER SERVICES
Run Command

Create Load Balancer Actions

search: vpc-2 Add filter

| Name | DNS name | State | VPC ID | Availability Zones | Type |
|-----------------------------|-------------------------------|-------|---------------|-------------------------------|----------------|
| Utilities-dev-ELB-MB | Utilities-dev-ELB-MBHD | | vpc-2d | us-west-1b, us-west-1c | classic |
| Utilities-dev-ELB-PF | Utilities-dev-ELB-PFIF8 | | vpc-2d | us-west-1b, us-west-1c | classic |
| Utilities-dev-ELB-WZ | Utilities-dev-ELB-WZ9P | | vpc-2d | us-west-1b, us-west-1c | classic |
| Utilities-dev-ELB-1Q | Utilities-dev-ELB-1QQA | | vpc-2d | us-west-1b, us-west-1c | classic |

Load balancer: Utilities-dev-ELB-1QQA31R14NJ

Description Instances Health Check Listeners Monitoring Tags Migration

Basic Configuration

| | | | |
|---------------------|---|----------------|-----------------------------|
| Name: | Utilities-dev-ELB-1QQA | Creation time: | De |
| * DNS name: | Utilities-dev-ELB-1QQA west-1.elb.amazonaws.com (A Record) | Hosted zone: | Z36 |
| Type: | Classic (Migrate Now) | Status: | 2 of 2 instances in service |
| Scheme: | internet-facing | VPC: | vpc- |
| Availability Zones: | subnet-da8e5581 - us-west-1c, subnet-e129a186 - us-west-1b | | |

Port Configuration

| | |
|---------------------|--|
| Port Configuration: | 80 (HTTP) forwarding to 6080 (HTTP) Stickiness: Disabled Edit stickiness |
| | 443 (HTTPS, ACM Certificate: 3744) forwarding to 6443 (HTTPS) Backend Authentication: Disabled Stickiness: Disabled Edit stickiness |

Operational Practices | Deployments



EC2 Dashboard

Create Auto Scaling group Actions

Filter: Filter Auto Scaling groups...

1 to 10 of 10 Auto Scaling Groups

| Name | Launch Configuration / Template | Instances | Desired | Min | Max | Availability Zones | Default Cooldown | Health Check Grace Period |
|--|---|-----------|---------|-----|-----|--------------------|------------------|---------------------------|
| cliUtilitiesDevEnt-BaseEnterpriseStack-AutoScalingGroup-BMFG7LJUTFCT | cliUtilitiesDevEnt-BaseEnterpriseStack-LaunchConfiguration-BMFG7LJUTFCT | 0 | 0 | 0 | 0 | us-west-1c | 300 | 3,600 |
| cliUtilitiesDevEnt-BaseEnterpriseStack-AutoScalingGroup-BMFG7LJUTFCT | cliUtilitiesDevEnt-BaseEnterpriseStack-LaunchConfiguration-BMFG7LJUTFCT | 0 | 0 | 0 | 0 | us-west-1c | 300 | 3,600 |
| cliUtilitiesDevEnt-BaseEnterpriseStack-AutoScalingGroup-BMFG7LJUTFCT | cliUtilitiesDevEnt-BaseEnterpriseStack-LaunchConfiguration-BMFG7LJUTFCT | 2 | 2 | 2 | 2 | us-west-1b | 300 | 3,600 |

Auto Scaling Group: cliUtilitiesDevEnt-BaseEnterpriseStack-AutoScalingGroup-BMFG7LJUTFCT

Details Activity History Scaling Policies Instances Monitoring Notifications Tags Scheduled Actions Lifecycle Hooks

Launch Configuration: cliUtilitiesDevEnt-BaseEnterpriseStack-LaunchConfiguration-BMFG7LJUTFCT

Launch Template

Launch Template Version

Service-Linked Role

Load Balancers

Target Groups

| | |
|---------|---|
| Desired | 2 |
| Min | 2 |
| Max | 2 |

Health Check Type: EC2

Health Check Grace Period: 3600

Termination Policies: Default

Creation Time: Thu Dec 21 09:42:08 GMT-800 2017

Availability Zone(s): us-west-1b

Subnet(s): subnet-e129a186

Default Cooldown: 300

Placement Group

Suspended Processes: Launch, Terminate, HealthCheck, ReplaceUnhealthy, AZRebalance, AlarmNotification, ScheduledActions, AddToLoadBalancer

Enabled Metrics

Instance Protection

Edit





• *Architecture*



• *Deployment*



• *Manage Costs*

- *Environment Availability*

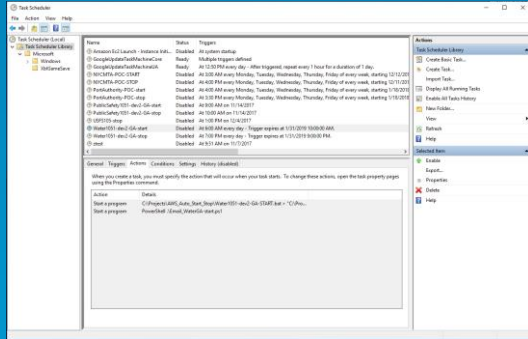
• *Monitor*

• *Update Licenses*

• *Upgrade*

Operational Practices | Environment Availability

Task Scheduler



.bat file...



rem BaseEnterprise

```
aws ec2 --region us-west-2 start-instances --instance-ids i-0xxxxxax
```

rem FileServers...

```
aws ec2 --region us-west-2 start-instances --instance-ids i-1xxxxxbx
```

rem Spatiotemporal...

```
aws ec2 --region us-west-2 start-instances --instance-ids i-2xxxxxcx  
timeout /t 240
```

rem Server Primary...

```
aws ec2 --region us-west-2 start-instances --instance-ids i-3xxxxxdx  
timeout /t 240
```

rem Server Secondary...

```
aws ec2 --region us-west-2 start-instances --instance-ids i-4xxxxxex  
timeout /t 240
```

PowerShell...



```
$smtpServer = "email-smtp.us-west-2.amazonaws.com"
```

```
$smtpPort = 587
```

```
$username = "????????????????????"
```

```
$password = "????????????????????"
```

```
$from = "myname@domain.com"
```

```
$to = "toname@domain.com"
```

```
$bcc = "bccname@domain.com"
```

```
$subject = "Test e-mail with PowerShell"
```

```
$body = "This is a test e-mail sending with using PowerShell.
```

```
The zTest Task Scheduler ran.
```

```
http://www.testsomelink.com
```

```
myname@domain.com"
```

```
$smtp = new-object Net.Mail.SmtpClient($smtpServer, $smtpPort)
```

```
$smtp.EnableSsl = $true
```

```
$smtp.Credentials = new-object Net.NetworkCredential($username,  
$password)
```

```
$msg = new-object Net.Mail.MailMessage
```

```
$msg.From = $from
```

```
$msg.To.Add($to)
```

```
$msg.Bcc.Add($bcc)
```

```
$msg.Subject = $subject
```

```
$msg.Body = $body
```

```
$smtp.Send($msg)
```

Operational Practices | Environment Availability



AWS
Lambda



Amazon
CloudWatch



Function code Info

Code entry type: Edit code inline

Runtime: Python 2.7


Handler info: lambda_function.lambda_handler

```
File Edit Find View Goto Tools Window
Environment
  EC2-START
    lambda_function.py
  lambda_function.py
1 import boto3
2
3 region = 'us-east-1'
4
5 instances = ['i-XXXXXXXXXX']
6
7 def lambda_handler(event, context):
8
9     ec2 = boto3.client('ec2', region_name=region)
10
11     ec2.start_instances(InstanceIds=instances)
12
13     print 'started your instances: ' + str(instances)
```

 EC2-START
 EC2-STOP

Rules > EC2-START-6am-EST

Summary

ARN  `arn:aws:events:us-east-1:300061136627:rule/EC2-START-6am-EST`

Schedule Cron expression `00 11 ? * MON-FRI *`

Next 10 Trigger

| Date(s) | Trigger |
|-----------------------------------|---------|
| 1. Thu, 01 Mar 2018 11:00:00 GMT | |
| 2. Fri, 02 Mar 2018 11:00:00 GMT | |
| 3. Mon, 05 Mar 2018 11:00:00 GMT | |
| 4. Tue, 06 Mar 2018 11:00:00 GMT | |
| 5. Wed, 07 Mar 2018 11:00:00 GMT | |
| 6. Thu, 08 Mar 2018 11:00:00 GMT | |
| 7. Fri, 09 Mar 2018 11:00:00 GMT | |
| 8. Mon, 12 Mar 2018 11:00:00 GMT | |
| 9. Tue, 13 Mar 2018 11:00:00 GMT | |
| 10. Wed, 14 Mar 2018 11:00:00 GMT | |

Status Disabled

Description EC2-START-7am-EST

Monitoring [Show metrics for the rule](#)

Targets

Filter:

| Type | Resource name | Input |
|-----------------|---------------------------|---------------|
| Lambda function | EC2-START | Matched event |

Operational Practices | Environment Availability



AWS
Lambda

| | |
|----------------------------------|--|
| <input checked="" type="radio"/> | cliUtilitiesDevEnt-ServerStack-StartStackFunction-VPVQC6UT8MBF |
| <input type="radio"/> | cliUtilitiesDevEnt-ServerStack-StopStackFunction-JFX1KNI43L39 |



Amazon
CloudWatch

Rules > EC2-START-6am-EST

Summary

ARN `arn:aws:events:us-east-1:300061136627:rule/EC2-START-6am-EST`

Schedule Cron expression `00 11 ? * MON-FRI *`

Next 10 Trigger Date(s)

1. Thu, 01 Mar 2018 11:00:00 GMT
2. Fri, 02 Mar 2018 11:00:00 GMT
3. Mon, 05 Mar 2018 11:00:00 GMT
4. Tue, 06 Mar 2018 11:00:00 GMT
5. Wed, 07 Mar 2018 11:00:00 GMT
6. Thu, 08 Mar 2018 11:00:00 GMT
7. Fri, 09 Mar 2018 11:00:00 GMT
8. Mon, 12 Mar 2018 11:00:00 GMT
9. Tue, 13 Mar 2018 11:00:00 GMT
10. Wed, 14 Mar 2018 11:00:00 GMT

Status Disabled

Description EC2-START-7am-EST

Monitoring [Show metrics for the rule](#)

Targets

Filter:

| Type | Resource name | Input |
|-----------------|---------------------------|---------------|
| Lambda function | EC2-START | Matched event |

- *Architecture*
- *Deployment*
- *Manage Costs*
 - *Environment Availability*



- *Monitor*
- *Update Licenses*
- *Upgrade*

Operational Practices | Monitoring



A screenshot of a web browser displaying the ArcGIS Monitor Server documentation page. The browser's address bar shows the URL: https://enterprise.arcgis.com/en/monitor/latest/reports/what-is-arcgis-monitor-server.htm. The page features a navigation menu with 'Home', 'Get Started', 'Administration', and 'Reports'. The 'Reports' section is active, showing a list of links on the left: 'What is ArcGIS Monitor Server?', 'Access ArcGIS Monitor Server', 'View collection status, alerts, and failures', 'View counter status and reports', 'View catalog status and reports', 'View configuration status', 'View collection time status and reports', 'Configure and export reports', and 'Glossary'. The main content area has a heading 'What is ArcGIS Monitor Server?' followed by a paragraph: 'ArcGIS Monitor Server is a web-based dashboard that allows you to view alerts and visualize historical data for various time periods. Reports with statistics can be used to visualize resource usage and enhance communications among GIS, IT, business owners, and senior management.' Below this is another heading 'Statistics in ArcGIS Monitor' with a paragraph: 'ArcGIS Monitor makes full use of statistics; therefore, administrators should be familiar with the following basic statistics: min, max, average, and percentile. For deployments with many counters and large amounts of historical data, analyzing tabular statistics is more effective than analyzing charts. When the time span of a report is less than 12 hours, charts display real-time data values at the collection interval. When the time span of a report is greater than 12 hours, the chart displays hourly averages. As a result, the chart is flattened and does not show maximum value. Table statistics always display true values for min, max, percentile, and so on, regardless of the time span.' A 'Feedback on this topic?' link is at the bottom. A sidebar on the right contains the text 'In this topic' and a link 'Statistics in ArcGIS Monitor'.

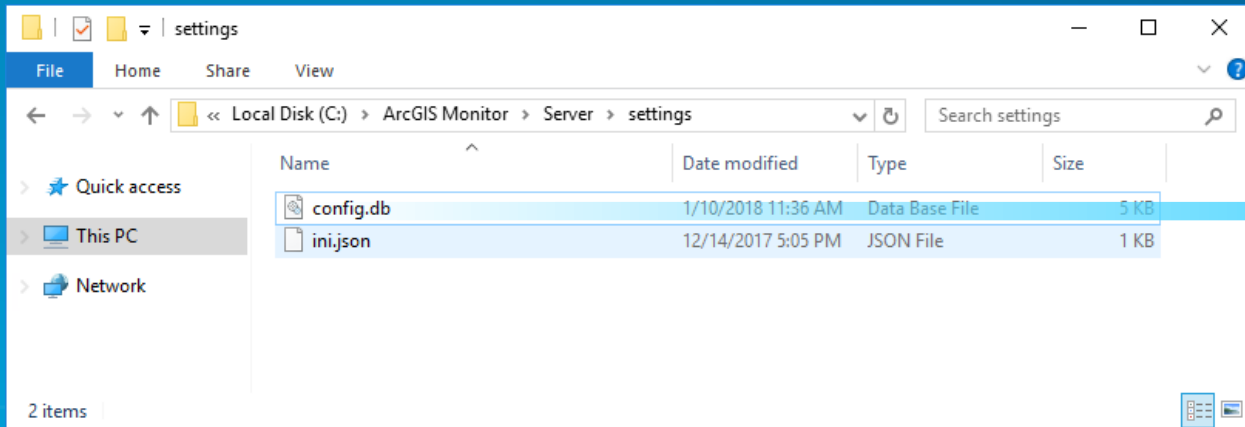
A login form for ArcGIS Monitor. It features the ArcGIS logo and the text 'ArcGIS Monitor' at the top. Below this are two input fields: 'User Name' and 'Password'. At the bottom, there are two buttons: 'Login' and 'Reset Password'.

Operational Practices | Monitoring



Not just system monitoring but Service performance!

Operational Practices | Monitoring



```
],
"email": [
  {
    "type": "email",
    "useInternal": false,
    "adminEmailAddress": "myname@domain.com",
    "host": "email-smtp.us-west-2.amazonaws.com",
    "port": 587,
    "auth": {
      "user": "????????????????????",
      "pass": "????????????????????????????????????????????????????????????"
    },
    "secureConnection": true,
    "maxConnections": 5,
    "maxMessages": 10,
    "createdAt": "2015-11-17T19:44:18.555Z",
    "updatedAt": "2018-01-10T19:36:38.384Z",
    "id": 1,
    "emailHeader": "",
    "emailFooter": "",
    "immediateEmailRules": {
      "alert60EmailAfter": 3,
      "alert300EmailAfter": 2,
      "alert900EmailAfter": 1,
      "alert3600EmailAfter": 1,
      "emailQuotaPerAlert": 1,
      "alertOnClose": false
    }
  }
]
],
```

Operational Practices | Monitoring



ArcGIS Monitor Administrator

File Remove Test Config Logs

Site@: .com:443

- PRODUCTION
 - E com (8)
 - Amazon (1)
 - ArcGIS (4)
 - Hosting Server
 - Core AGS 1
 - GeoEvent 1
 - GeoEvent 2
 - DB (0)
 - Ext (2)
 - GE-1
 - GE-2**
 - Http (0)
 - Portal (1)
 - Enterprise
 - Process (0)
 - RDP (0)
 - System (0)
 - Tasks (0)

</> Extension

Config Alerts (1) Help

Counter: ⓘ If alert selections are empty, click the Test button

Throughput (Tr/sec)(LEIPC-PhillyCalls)

Alert Type: Equal To

Validation Value: 0

+ Add

Configured Alerts

| Name | Category | Alert Type | Value | Note | Delete |
|---|----------|------------|-------|--------------------------------|--------|
| Throughput (Tr/sec) (LEIPC-PhillyCalls) | Warr | Equal To | 0 | Alert - PhillyCalls Tr/Sec = 0 | Delete |

— Delete All Alerts Set Default Alerts Test Save

ⓘ Use Save Button, (Ctrl+S) or File->Save to save edits to these property pages

Feature ArcGIS Monitor expires on 2-27-2018 admin

Operational Practices | Monitoring



ArcGIS Monitor Administrator

File Collection Notifications Permissions

Site@: .com:443

- PRODUCTION
 - Er com (8)
 - Amazon (1)
 - ArcGIS (4)
 - DB (0)
 - Ext (2)
 - GE-1
 - GE-2
 - Http (0)
 - Portal (1)
 - Enterprise
 - Process (0)
 - RDP (0)
 - System (0)
 - Tasks (0)
- Utilities

There are two types of emails:

- A dynamic or immediate email is sent only once after a new alert has occurred (historical or pre-existing alerts will not trigger a new email)
- A static or recurring email sent every 4 hours if conditions are alerting or failing

Send email from:

mcarlson@esri.com

Send email to:

All (0) System (0) Process (0) ArcGIS (0) Portal (0) DB (0) Http (0) RDP (0)

Amazon (0) EXT (1)

Email:

+ Add

| Name | Delete |
|-------------------|--------|
| mcarlson@esri.com | Delete |

Save

Feature ArcGIS Monitor expires on 2-27-2018

admin

- ✓ • *Architecture*
- ✓ • *Deployment*
- ✓ • *Manage Costs*
 - *Environment Availability*
- ✓ • *Monitor*
- 🔑 • *Update Licenses*
 - *Upgrade*

Operational Practices | License Updates / Apply Patches

Commands > Run a command

Run a command

A command document includes the information about the command you want to run. Select a command document from the following list and then specify parameters for the command.

Command document*

Owned by Me or Amazon Filter by attributes 1 to 32 of 32

| Name | Owner | Platform type |
|---|--------|----------------|
| <input type="radio"/> AWS-Run-UpdateBaseline | Amazon | Windows, Linux |
| <input type="radio"/> AWS-InstallSpecificWindowsUpdates | Amazon | Windows |
| <input checked="" type="radio"/> AWS-RunShellScript | Amazon | Linux |
| <input type="radio"/> AWS-ConfigureCloudWatch | Amazon | Windows |
| <input type="radio"/> AWS-RunPowerShellScript | Amazon | Windows, Linux |
| <input type="radio"/> AWS-ApplyPatchBaseline | Amazon | Windows |
| <input type="radio"/> AWS-UpdateEC2Config | Amazon | Windows |
| <input type="radio"/> AWS-InstallWindowsUpdates | Amazon | Windows, Linux |
| <input type="radio"/> AWS-InstallMissingWindowsUpdates | Amazon | Windows |
| <input type="radio"/> AWSSupport-RunEC2RescueForWindowsTool | Amazon | Windows |
| <input type="radio"/> AmazonInspector-ManageAWSAgent | Amazon | Windows, Linux |
| <input type="radio"/> AWSEC2-CreateVssSnapshot | Amazon | Windows |
| <input type="radio"/> AWSEC2-RunSysprep | Amazon | Windows |
| <input type="radio"/> AWSEC2-ManageVssIO | Amazon | Windows |
| <input type="radio"/> AmazonCloudWatch-MigrateCloudWatchAgent | Amazon | Windows |

Select Targets by* Manually Selecting Instances Specifying a Tag

i-035e7848a481f4282

Select instances ▲

Filter by attributes

Name

- cliUtilitiesDevEnt-GeoAnalyticsStack-fileserver
- cliUtilitiesDevEnt-GeoEventStack
- cliUtilitiesDevEnt-BaseEnterpriseStack
- cliUtilitiesDevEnt-ServerStack-fileserver
- cliUtilitiesDevEnt-BaseEnterpriseStack-bds
- cliUtilitiesDevEnt-ServerStack-primary
- cliUtilitiesDevEnt-ServerStack-secondary
- cliUtilitiesDevEnt-BaseEnterpriseStack-bds

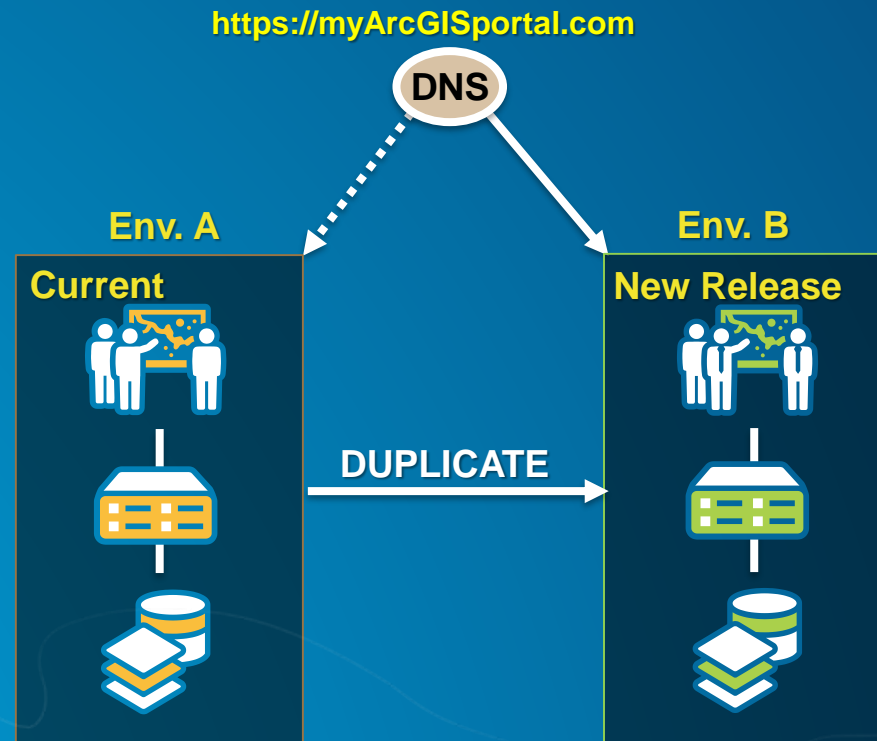
Commands*

```
aws s3 cp s3://my_bucket/my_folder/file.ecp /tmp/file.prvc  
sudo su arcgis /arcgis/server/tools/authorizeSoftware.sh -f /tmp/file.prvc
```



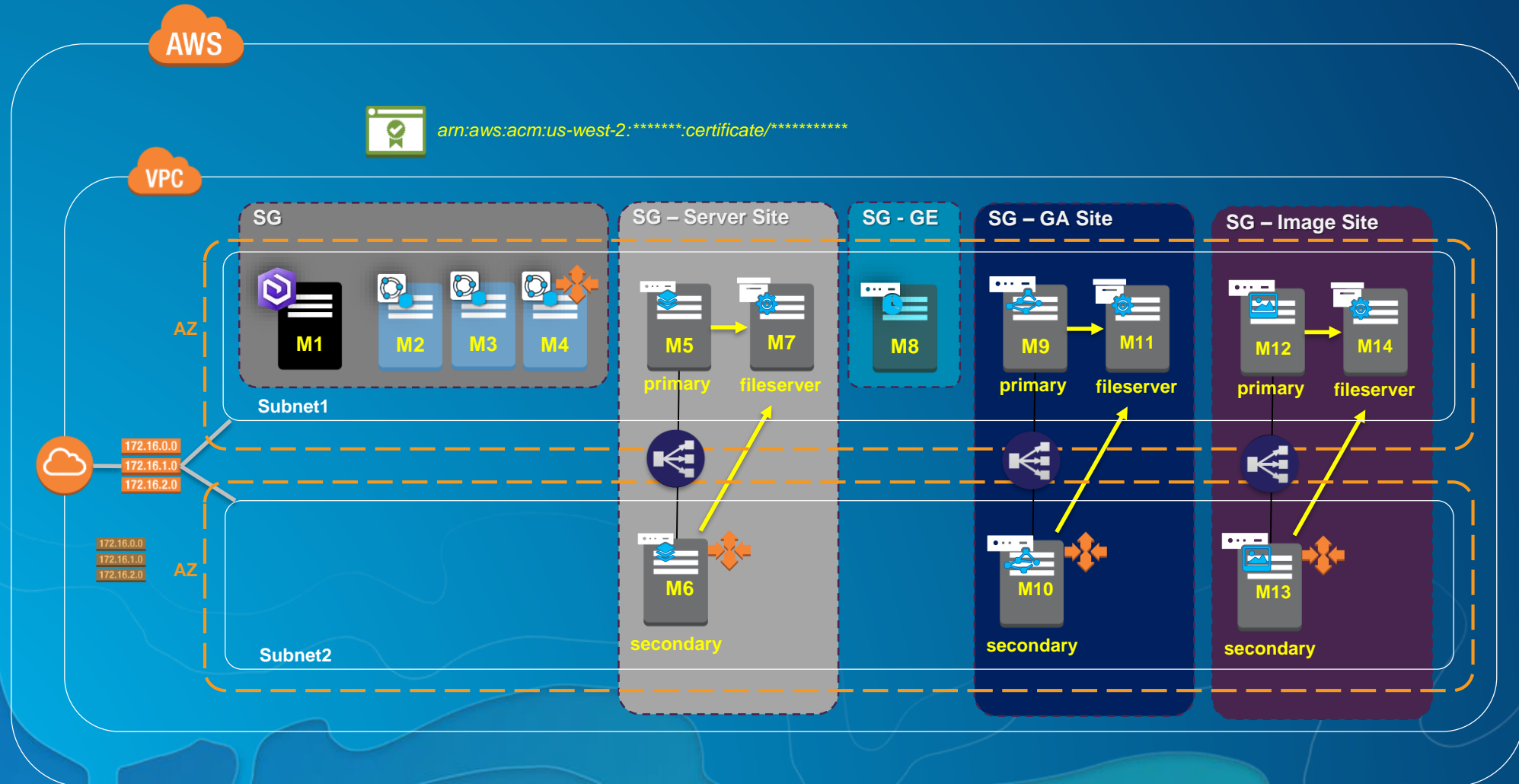
- ✓ • *Architecture*
- ✓ • *Deployment*
- ✓ • *Manage Costs*
 - *Environment Availability*
- ✓ • *Monitor*
- ✓ • *Update Licenses*
 - *Upgrade*

Operational Practices | Upgrades

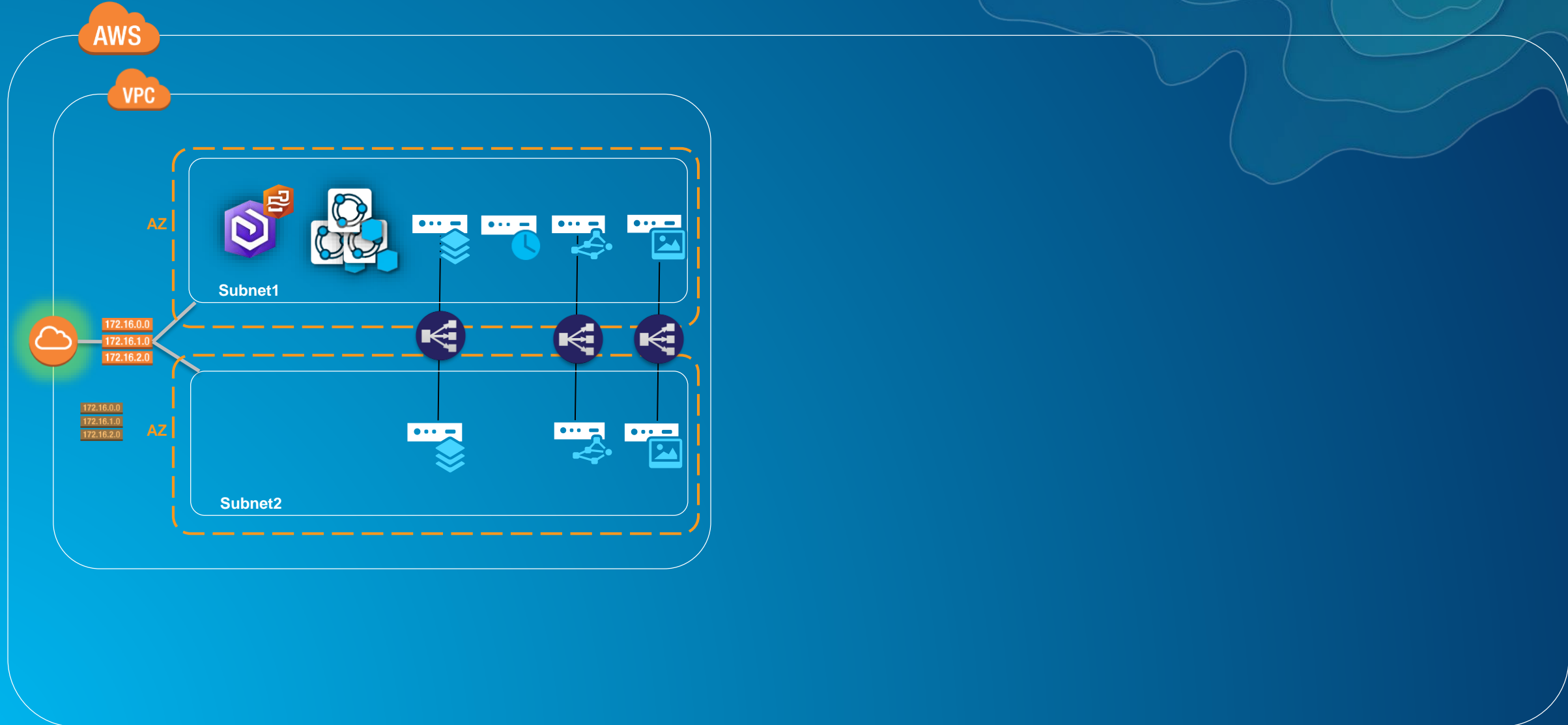


Seamless
The url for the end user never changes.

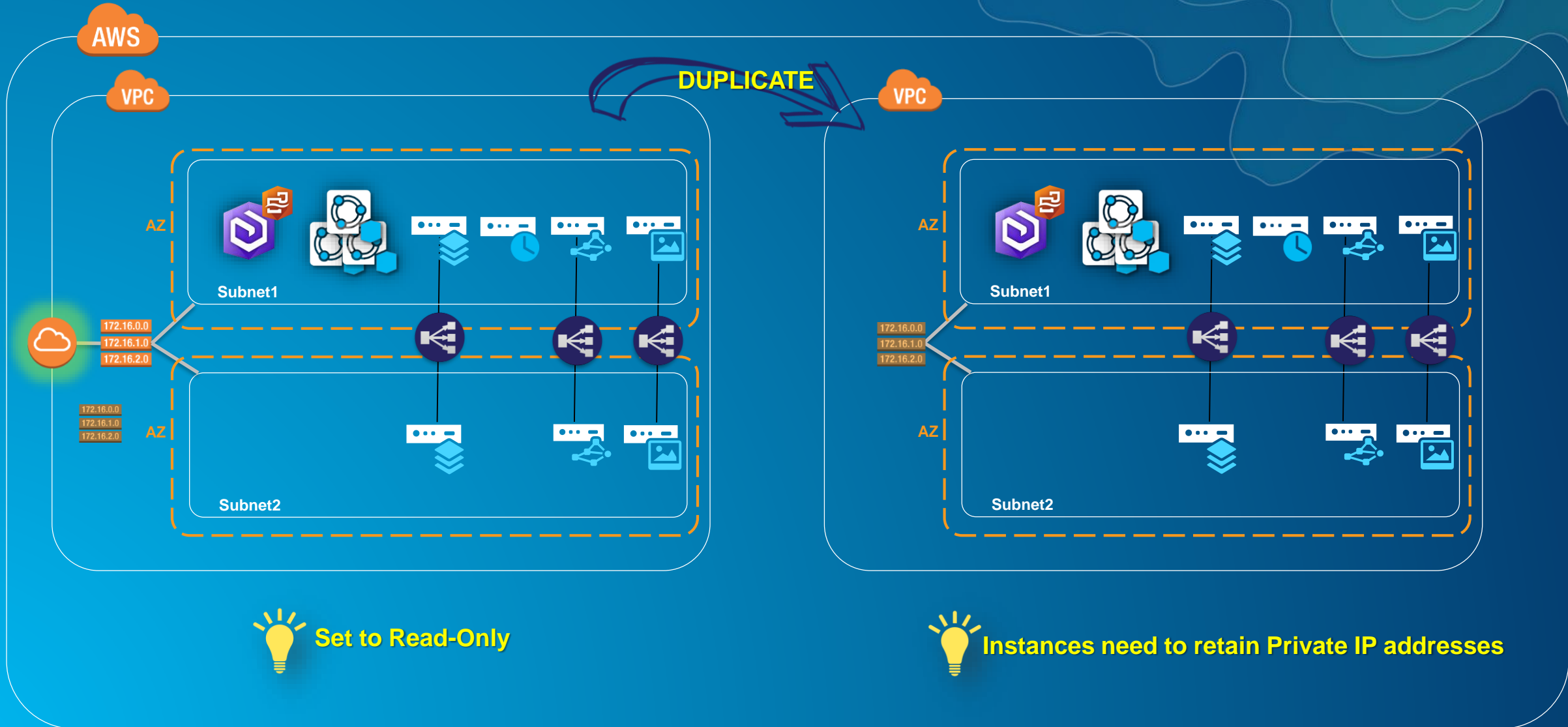
Operational Practices | Upgrades



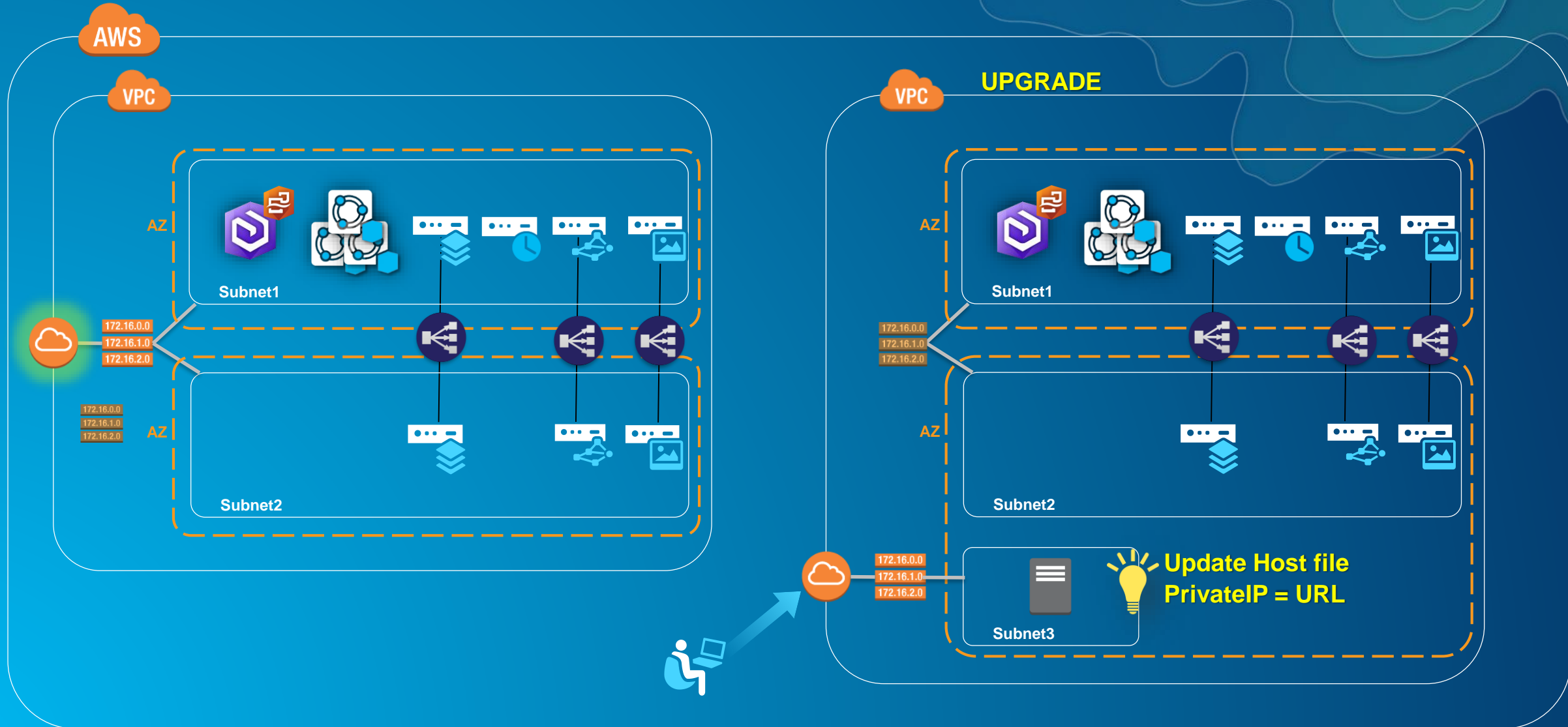
Operational Practices | Upgrades



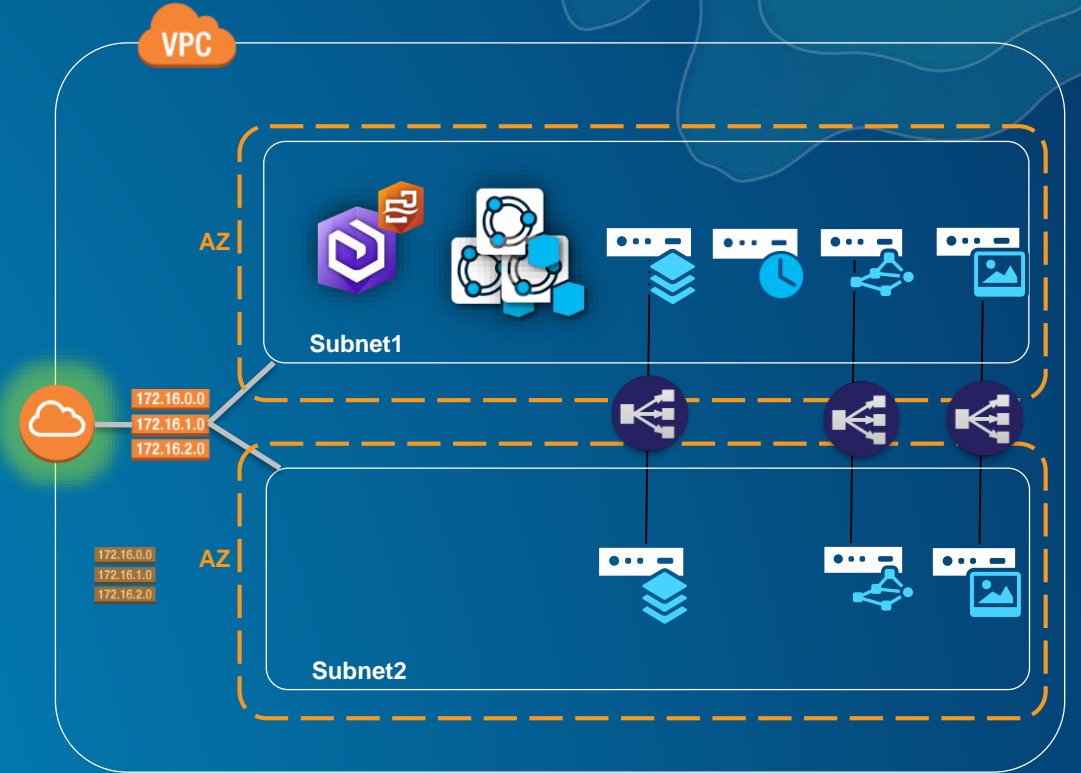
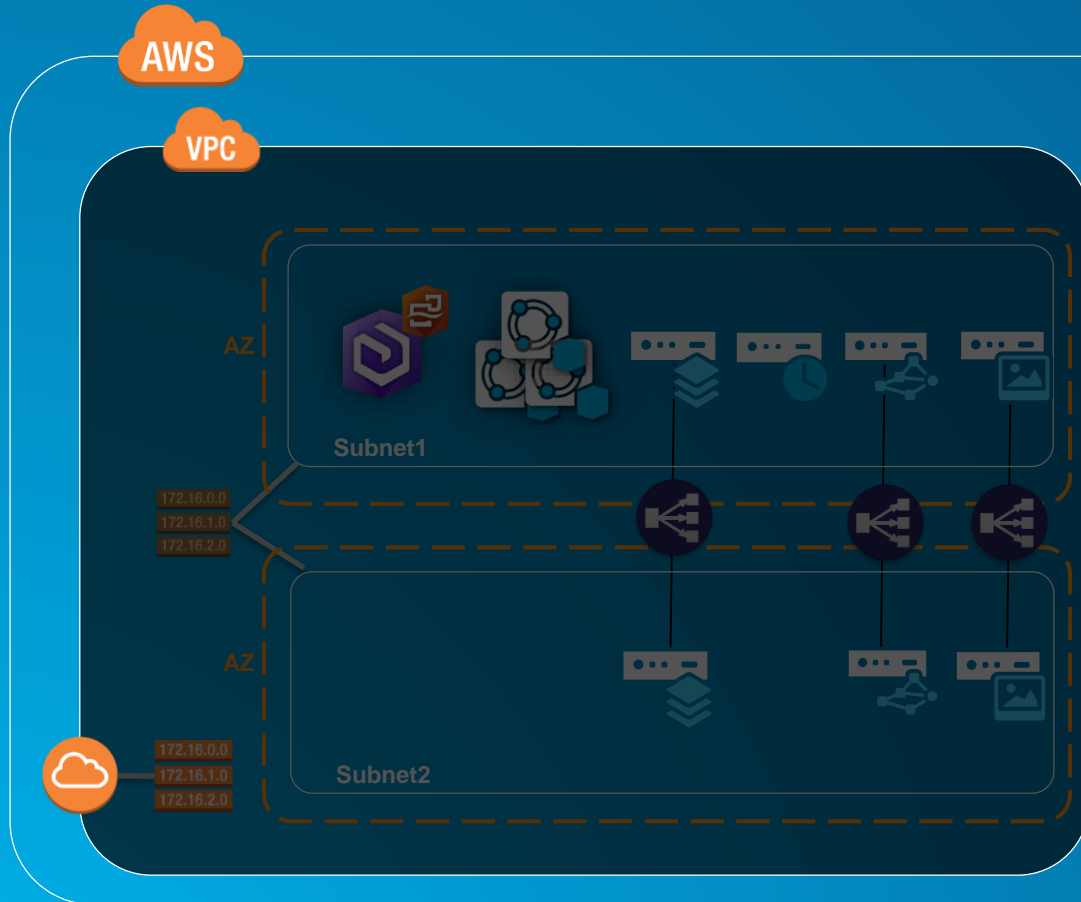
Operational Practices | Upgrades



Operational Practices | Upgrades



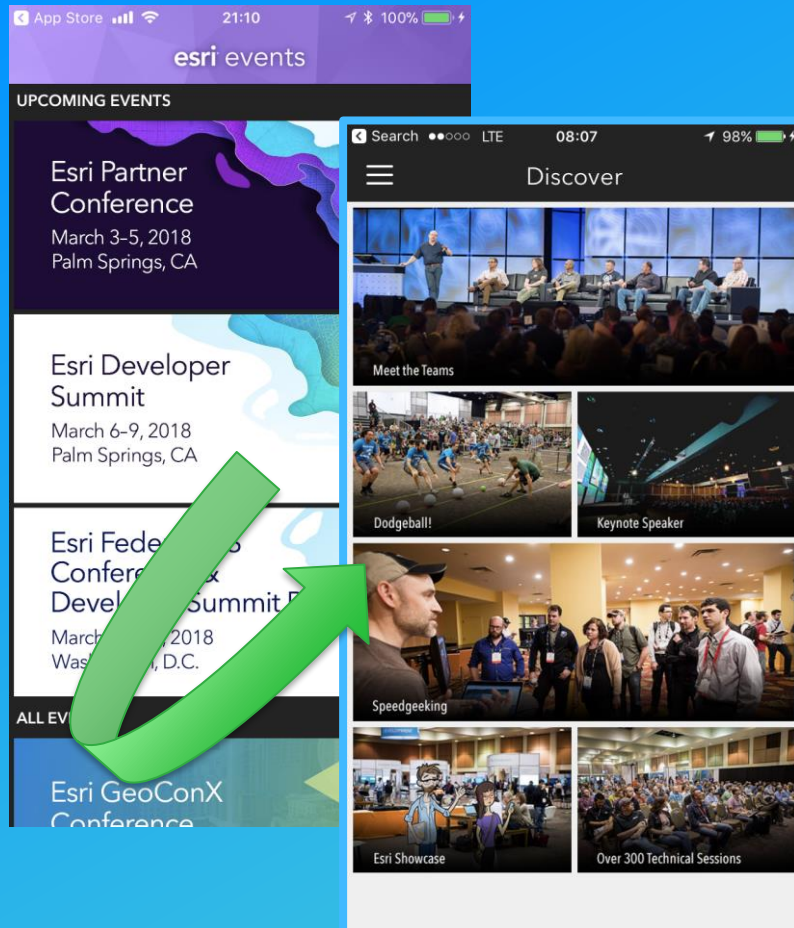
Operational Practices | Upgrades



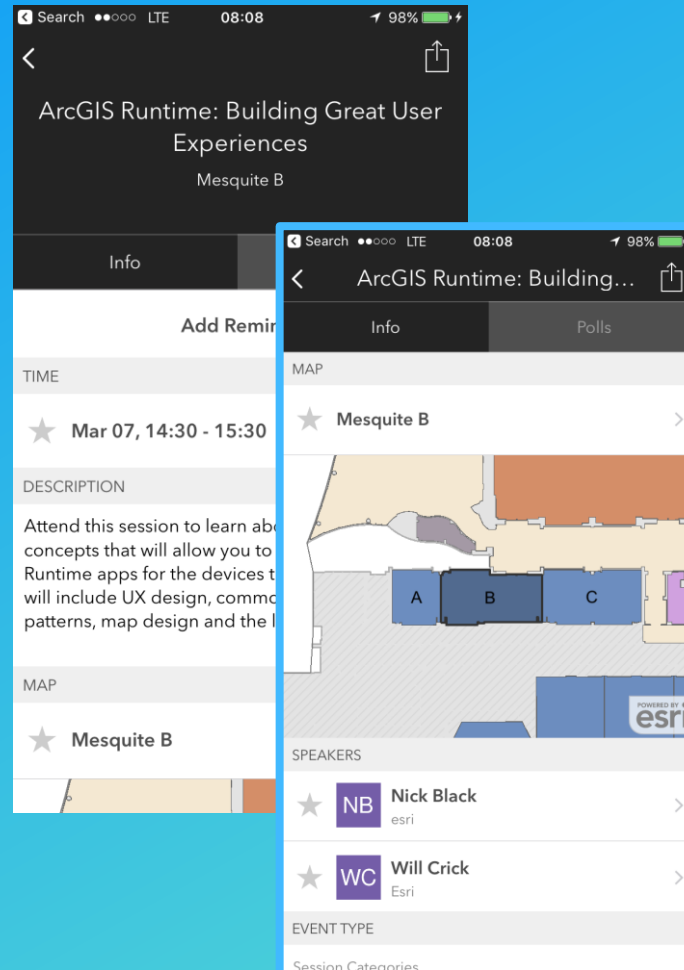
Update DNS to new site

Please Take Our Survey!

Download the Esri Events app
and find your event

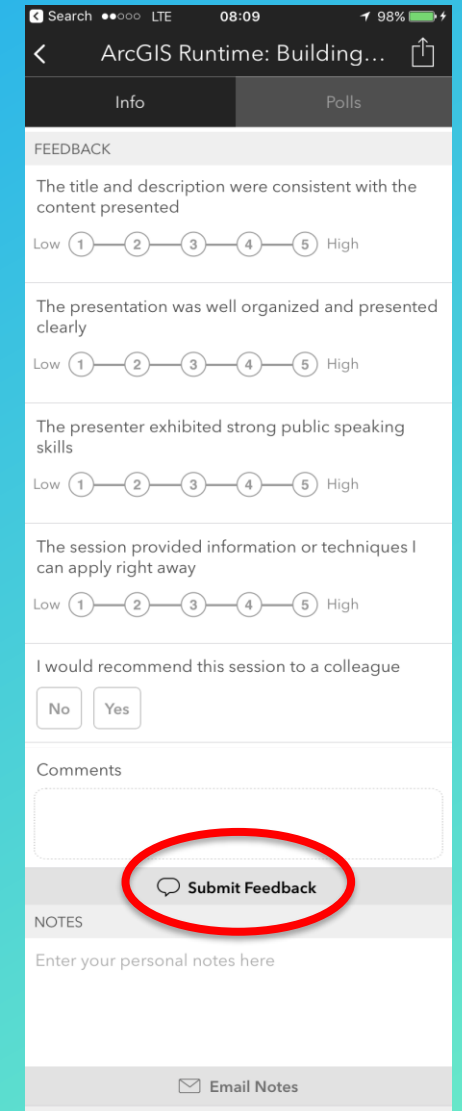


Select the session you
attended



Scroll down to the
“Feedback” section

Complete Answers,
add a Comment,
and Select “Submit”





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