# Westcon AWS Web Hosting Starter Kit Deployment Guide







# AWS WebApp Windows Bundle – Implementation Guide v1.0

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#### Overview

This document provides an implementation guide to launch the AWS WebApp Windows bundle for AWS Distributors.

Amazon Elastic Compute Cloud (Amazon EC2) is a web service that provides resizable compute capacity in the cloud. Amazon EC2's simple web service interface allows you to obtain and configure capacity with minimal friction. Amazon EC2 reduces the time required to obtain and boot new server instances to minutes, allowing you to quickly scale capacity, both up and down, as your computing requirements change. Amazon EC2 changes the economics of computing by allowing you to pay only for capacity that you actually use.

Amazon RDS is a web service that makes it easy to set up, operate, and scale a relational database in the cloud. It provides cost-efficient and resizable capacity while managing time-consuming database administration tasks, freeing you up to focus on your applications and business.



## Architecture Overview

Region			
	AZ 1	AZ 2	
A VPC			
đ	Public subnet	Public subnet	
	WebApp Instance		
đ	Private subnet	Private subnet	
	RDS MS SQL		
		.,	!

#### Cost

This bundle uses the following resources:

Resource Type	Price (USD)
EC2 Instance – t3.medium	\$0.06/hour (US East Ohio)
RDS MS SQL – db.m5.xlarge	\$2.448/hour (US East Ohio)

NOTE: The above pricing information may be subject to change. Always check the official documentation for the latest costs. EC2 pricing information is available <u>here</u>. RDS pricing information is available <u>here</u>.



### Template

This solution uses AWS CloudFormation to bootstrap AWS infrastructure and automate the deployment of Windows WebApp Server and MS SQL Database Server on the AWS Cloud. The template is in the form of a "*WebApp-Windows.yaml*" file provided along with this implementation guide.

#### Deployment

This guide is for the deployment of the WebApp Windows Bundle using CloudFormation.

#### Pre-Requisite

1. An existing EC2 Key Pair

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".

aws	Services	Q ec2		×			🔈 👃 🕜 N. Virginia 🔻	Admin/saynerd-Isengard @ 1213+8216-5594 🔻				
<ul> <li>Instances</li> <li>Instances</li> </ul>	s s Types	^	Resources			EC2 Global view 🖾 🖉 🐵	Account attributes	C				
Launch T	Templates		You are using the following Amazon EC2 resources	in the US East (N. Virginia) Re	Supported platforms 🛂							
Spot Requests			Instances (running) 0	Auto Scaling Groups	0	Dedicated Hosts 0	VPC Default VPC [7]					
Reserved	d Instances	- 11	Elastic IPs 0	Instances	0	Key pairs 1	vpc-06c7162363133f44b					
Dedicate	ed Hosts	- 11	Load balancers 0	Placement groups	0	Security groups 1	Settings EBS encryption					
Capacity	Reservations	- 11	Snapshots 0	Volumes	0		Zones					
<ul> <li>Images</li> <li>AMIs</li> <li>AMI Cata</li> </ul>	ılog		Easily size, configure, and deploy Microsoft Learn more	SQL Server Always On availab	EC2 serial Control Con							
<ul> <li>Elastic Bl</li> <li>Volumes</li> </ul>	lock Store		Launch instance To get started, launch an Amazon EC2 instance, which is a v	virtual server in the cloud.	Service health	C AWS Health Dashboard	Explore AWS X Save up to 90% on EC2 with Spot Instances Optimize price-performance by combining EC2 purchase options in a single EC2 ASG. Learn more C Get Up to 40% Better Price Performance Tal instance oliver the best price performance for burstable acreeral					
Snapshot Lifecycle	ts Manager		Launch instance <b>V</b> Migrate a server	Z	Region US East (N. Virginia)	Status O This service is operating pormally.						
Network     Security     Elastic IP:	Groups		Note: Your instances will launch in the US East (N. Virginia)	Region	Zones	nanisay						
Placement Groups Key Pairs Network Interfaces			Scheduled events	C	Zone name	Zone ID	purpose workloads in Amazon EC2. Learn	more 🖸				
			10 East (II Markela)		us-east-1a use1-az4		Enable Best Price-Performance with AWS Graviton2 AWS Graviton2 powered EC2 instances enable up to 40% better price					
			No scheduled events		us-east-1b	use1-az6	performance for a broad spectrum of clou	d workloads. Learn more 🔼				
Load Bala	ancers				us-east-1c	use1-az1						
	HIFeedback	Language	e/home?renionvis.east.1				© 2023, Amazon Web Services, Inc. or its affiliat	es. Privacy Terms Cookie preferences				

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

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▼ Instances	K	ey pairs (1) Info								C	Actions 🔻	Create key pair
Instances	0	Q Search										< 1 > @
Instance Types		Name	▼   Type	⊽	Created	~	Fingerprint	ID				~
Launch Templates		nvirginia-test-key	rsa		2023/03/20 16:39 GMT+8		c6:47:88:5c:a9:3a:78:aa:f5:68:4f:5f:65:6	key-0685a3d	172c530161			
Spot Requests												
Deserved Instances												
Dedicated Hosts												
Scheduled Instances												
Capacity Reservations												
-												
• Images												
AMIS AMI Control on												
Ami Catalog												
Elastic Block Store												
Volumes												
Snapshots												
Lifecycle Manager												
Vetwork & Security												
Security Groups												
Elastic IPs												
Placement Groups												
Key Pairs												
Network Interfaces												
▼ Load Balancing												
Load Balancers												
	¥											
Cloudshell Feedback Langu	uage							02	2025, Amazon Web Se	rvices, inc. or its affiliates.	Privacy	Terms Cookie preferences

- 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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EC2 > Key pairs > Create key pair					
Create key pair Info					
Key pair A key paik consisting of a private key and a public key, is a set of security oredentials that you use to prove your identity when connecting to an isutance.					
Name					
sample-key-pair					
The name can include up to 255 ASCII characters. It can't include leading or trailing spaces.					
Key pair type Info					
O RSA					
O ED25519					
Private key file format					
per     For use with OpenSSH					
O . ppk For use with PuTTY					
Tags - optional					
No tags associated with the resource.					
Add new tag					
tou um aau ap uo su more lags.					
Cancel Create key pair					
adfaall Farekaal, Laamaara	0.202		Web Fee	ines les esite affi	Entre Drivers Terms Carbin

#### Deploying Template Using AWS CloudFormation

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CloudFormation ×	Management & Governance		
Stacks		1	
StackSets	AWS CloudFormation	Create a CloudFormation stack	
Exports	Model and provision all your cloud	Use your own template or a sample template to quickly get started.	
Designer	infrastructure	Create stack	
▼ Registry	AWS CloudFormation provides a common language to describe and provision all the infrastructure resources in your environment in a safe, repeatable way.		
Public extensions		Getting started 🖄	
Publisher		What is AWS ClaudEcomption	6
	How it works		
Spotlight New	Simplify Your Infrastructure Management Using AWS CloudFor	Getting started with CloudFormation	
Feedback	Simplify Your Infrastructure	Ouick starts	
	Management Using AWS		
	CloudFormation	More resources 🖸	
		Documentation	
	Watch on Vigilite	API reference	
		FAQs	
Cloud Dual Conclusion Language	Code your infractoursuring the ClaudSompation template language in the YAML or JSON	© 2023. Amaron Web Services. Inc. or its affilia	tes Privacy Terms Cookie preferences

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 "WebApp-Windows.yaml" file. Click "Next".



Services Q Search	[Alt+S]			<u>ک</u> ک	🕘 N. Virginia 🔻	Admin/saynerd-Isengard @ 1213-8216-5594				
CloudFormation > Stacks > Cre	ate stack									
Step 1 Create stack										
Step 2 Specify stack details										
Step 3 Configure stack options	Prepare template Every stack is based on a template. A template is a JSON or VAM. He that contains configuration information about the AWS resources you want to include in the stack.									
Step 4	• Template is ready	<ul> <li>Use a sample template</li> </ul>		O Create	template in Designer					
HEVEN Y	Specify template A template is a JSON or VAMI, file that describes your stack's resources and properties.  Template source Solicity a storpking primates an Anazon SS URL, where it will be stored.  United a template file  Choese file Webdpp-Windows.yoml JSON or VAMI, formatted file		• Upload a template file							
	S3 URL: https://s3.us-east-1.amazonaws.com/cf-templates-gnsappghtpnd-	us-east-1/2023-03-28T121409.392Zpda	-WebApp-Windows.yaml			View in Designer				
						Cancel Next				
dShell Feedback Language				© 2023, Amazor	n Web Services. Inc. or its affi	iliates. Privacy Terms Cookie prefer				

- 4. Enter a name for the stack.
- 5. Enter the server's name, and select the Key Pair that you created previously.

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=	Sten 3	Stack name							
	Configure stack options	webapp-stack							
	Step 4	Stack name can include letters (A-Z and a-z), numbers (0-9), and dashes (-).							
	Review webapp-stack								
		Parameters Parameters are defined in your template and allow you to input custom values when you create or update a stack.							
		Network Configuration							
		VPCCIDR Enter the CIDR value of your network in AWS							
		173.0.0./16							
		Virtual Machine Server Details							
		ServerName							
		webapp-ec2							
		InstanceType WebServer EC2 Instance type (for SMALL server use t3 medium, for a MEDIUM server use m5 Jarge, for a LARGE server use m5 ylarge)							
		13.medium						•	
		LatestAmild							
		/wws/service/ami-windows-latest/Windows_Server-2022-English-Full-Base							
		KeyName							
		Name of an existing EC2 KeyPair to enable RDP access to the WebServer instance						_	
		sampie-key-pan						•	
_		DB Instance Details							
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- 6. Under the DB Configuration parameters, enter the database user and password.
- 7. Click "Next".



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=		/aws/service/ami-windows-latest/Windows_Server-2022-English-Full-Base				
		KeyName Name of an existing EC2 KeyPair to enable RDP access to the WebServer instance				
		sample-key-pair				•
		DB Instance Details DBInstanceType				
		db.m5.xlarge				*
		DB Configuration DBUser The database admin account usemane				
		DBPassword The database admin account password				
		Bundle Specific Details				
		AWSDistributorName Partner Name				
		AcmeCorp				
		ReportingEnabled Allow MVS to collect basic usage metrics about this deployment				
		true				•
					Cancel Previous	Next

- 8. In the "Configuration Stack Option" click "Next".
- 9. In the "Review Page" make sure that you allow the template to create custom IAM resources and then click "Submit".

aws	Services	Q Search	[Alt+S]	Σ	\$	0	N. Virginia 🔻	Admin/saynerd-Isengarc	@ 1213-8216-5594 🔻
=			SNS topic ARN						
			No notification options There are no notification options defined						
			Stack creation options						
			Timeout -						
			Termination protection Disabled						
			Quick-create link						
			Capabilities						
			The following resource(s) require capabilities: [AWS::CloudFormation::Stack] This template cortains identity and Access Management (MAM resources. Check that you want to create each of these resources and that they have Check that the custom names are unique within your AWS account. Learn more 2 For this template, AWS CloudFormation might require an unrecognized capability: (0). Check the capabilities of these resources. Learn more 2	the mi	nimum	required	l permissions. In a	ddition, they have custo	m names.
			<ul> <li>Lacknowledge that AWS CloudFormation might create IAM resources with custom names.</li> <li>Lacknowledge that AWS CloudFormation might require the following capability: CAPABILITY_AUTO_EXPAND</li> </ul>						
			Create change set				C;	ncel Previous	Submit
D. Clou	Shell Feedbad	: Language		@ 2023	3, Amazo	n Web Se	rvices, Inc. or its affil	iates. Privacy Term	s Cookie preferences



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

CloudFormation > Stacks > webapp-stack		[Alt+5] webapp-stack	🗵 🔷 🕅 N. Virginia	Admin/saynerd-Isengard @ 1213-8216-5594 $\bigtriangledown$
Stacks (1)  G. Filter by stock name	C	Stack info Events Resources Outputs Parameters Template	Delete Update Change sets	Stack actions ▼ Create stack ▼
Active  View nested	< 1 >	Events (1) Q. Search events		Ø
Stacks     webapp-stack     2025-03-38 20:27:01 UTC+0800     @ CREATE_IN_PROGRESS		Timestamp     v     Logical ID       2023-03-28 20:27:01 UTC+0800     webapp-stack	Status © CREATE_IN_PROGRESS	Status reason User Initiated
CREATE_IN_PROGRESS		1		
and the H. Cardhada Lawrence				

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

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E CloudFormation > Stacks > webapp-stack	webapp-stack	© ×
C Q. Filter by stack name	Stack Info Events Resources Outputs Parameters Template	Delete Update Stack actions V Create stack V change sets
Active  View nested  ( 1 >	Overview	٥
Stacks NESTED wohano.stack.com/StatisticsStack.KWY011077/87E	Stack ID amawx.cloudformationus-east-1:121382165594.stack/webapp-stack/d6f7e4e0- cd63-11ed-a1c7-0a66e6078781	Description Distribution Bundle for WebApp Windows & MS SQL
2023-03-28 2027:08 UTC+0800	Status O CREATE_COMPLETE	Status reason
webapp-stack 2023-03-28 2027:01 UTC 10800	Root stack	Parent stack -
O GRAIE_COMPLETE	Created time 2023-03-28 20:27:01 UTC+0800	Deleted time
	Updated time -	
	Drift status O NOT_CHECKED	Last drift check time
	Termination protection Disabled	IAM role -
	Tags	

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



13. Click on the "Outputs" tab to retrieve the information of WebApp Server and MS SQL Database

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CloudFormation > Stacks > webapp-stack	we	ebapp-stack				⊚ ×
🖻 Stacks (2)				Delete Update	Stack actions V	Create stack 🔻
Q. Filter by stack name		Stack info Events Resources	Outputs Parameters Template	Change sets		
Active   View nested  ( 1 )		Outputs (7)				C
Stacks		Q Search outputs				< 1 > ©
NESTED vvdbago-stad-sendStatisticsStack-KWK01102C4ZE 2020-50-30-202700 UTC-0800 CREATE_COMPLETE vvdbago-stadk 0 2020-60-30-202701 UTC-0800 CREATE_COMPLETE		Key 🔺	Value 🗢	Description V	Export name	~
		AZ	us-east-1a	Availability Zone of the newly created EC2 instance		
		Instanceld	i-03b738c7e9c618fde	Instanceld of the newly created EC2 instance		
		JDBCConnectionString	webaop-stack-mydb- 8nhhujcomj2y.cbdodh7obiur.us-east- 1.rds.amazonaws.com:1433	Endpoint connection string for the database	-	
		PrivateDNS	ip-173-0-3-78.ec2.internal	Private DNSName of the newly created EC2 instance		
		PrivatelP	173.0.3.78	Private IP address of the newly created EC2 instance		
		PublicDNS	ec2-3-88-110-195.compute- 1.amazonaws.com	Public DNSName of the newly created EC2 instance	-	
		PublicIP	3.88.110.195	Public IP address of the newly created EC2 instance		

#### Summary

This implementation guide provides basic details on launching AWS WebApp Windows Bundle.



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