

Build your stack in minutes. We will armor it for you.

1 Select Workload

2 Describe Workload

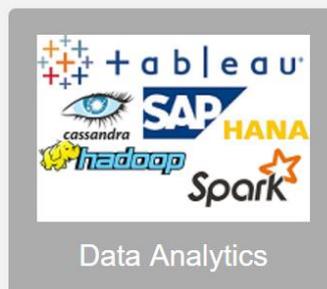
3 Configure Environment

4 Review Cost

5 Submit Request

6 Build Info.

Step 1. Click icon for Free Estimate



# RAPID DEPLOYMENT OF SITECORE ON AMAZON WEB SERVICES (AWS)

## White Paper

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<https://stackBuilder.stackArmor.com>  
solutions@stackarmor.com

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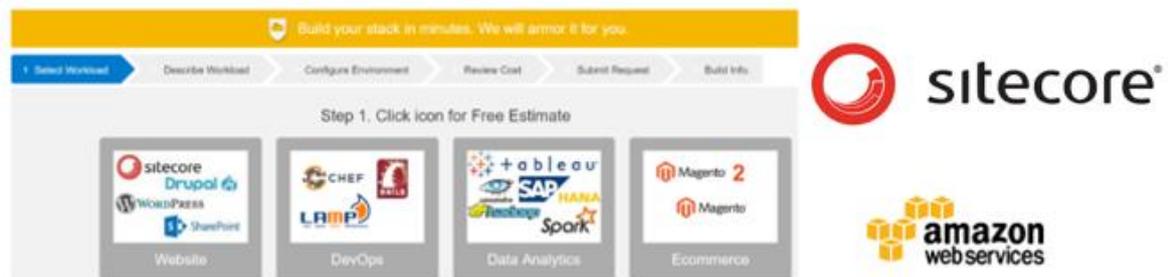


## Abstract

Amazon Web Services (AWS) offers a cost-effective and flexible hosting platform for enterprise applications such as Sitecore. This white paper describes about the motivation behind the use of Sitecore and how it can be hosted on cloud infrastructure “As-A-Service”. This paper also talks about the features provided by Sitecore, the System Requirements for its installation, and the add-on features provided by AWS to make the service robust, secure, and reliable.

The cloud experts at stackArmor have successfully migrated and supported large cloud-based systems on the AWS platform for customers such as US Treasury, US Department of Defence and other large security-focused organizations in Healthcare and Financial Services. StackBuilder™ is a cloud deployment automation platform that has a “Turbo-Tax” like wizard that helps users quickly select and jumpstart their content management system on AWS.

stackArmor’s StackBuilder™ is a cloud deployment wizard designed to assist companies in the rapid deployment and installation of Sitecore on Amazon Web Services (AWS). The highly experienced AWS solution architects at stackArmor have developed StackBuilder™ to simplify the cloud migration and hosting experience by automating the configuration and setting up of secure cloud hosting environments based on the AWS Well-Architected Framework (WAF).



*“Turbo-tax” like wizard for provisioning and installing workloads in AWS*

*Get started with your CMS project in less than 15 minutes with no commitment and simple hourly pricing with everything included using the new AWS Marketplace pricing model.*

## About Sitecore

Sitecore is a popular enterprise CMS and multi-channel marketing software. The architecture of this product is well suited to take advantage of the benefits of the AWS cloud. By using AWS services, including Amazon relational database service (Amazon RDS) and elastic Load balancing, one can operate Sitecore in a flexible and scalable way. A typical Sitecore installation has multiple servers and depending on the traffic served and load requirements the size of the environment is scaled. Key server roles and their deployment specifications are provided below.

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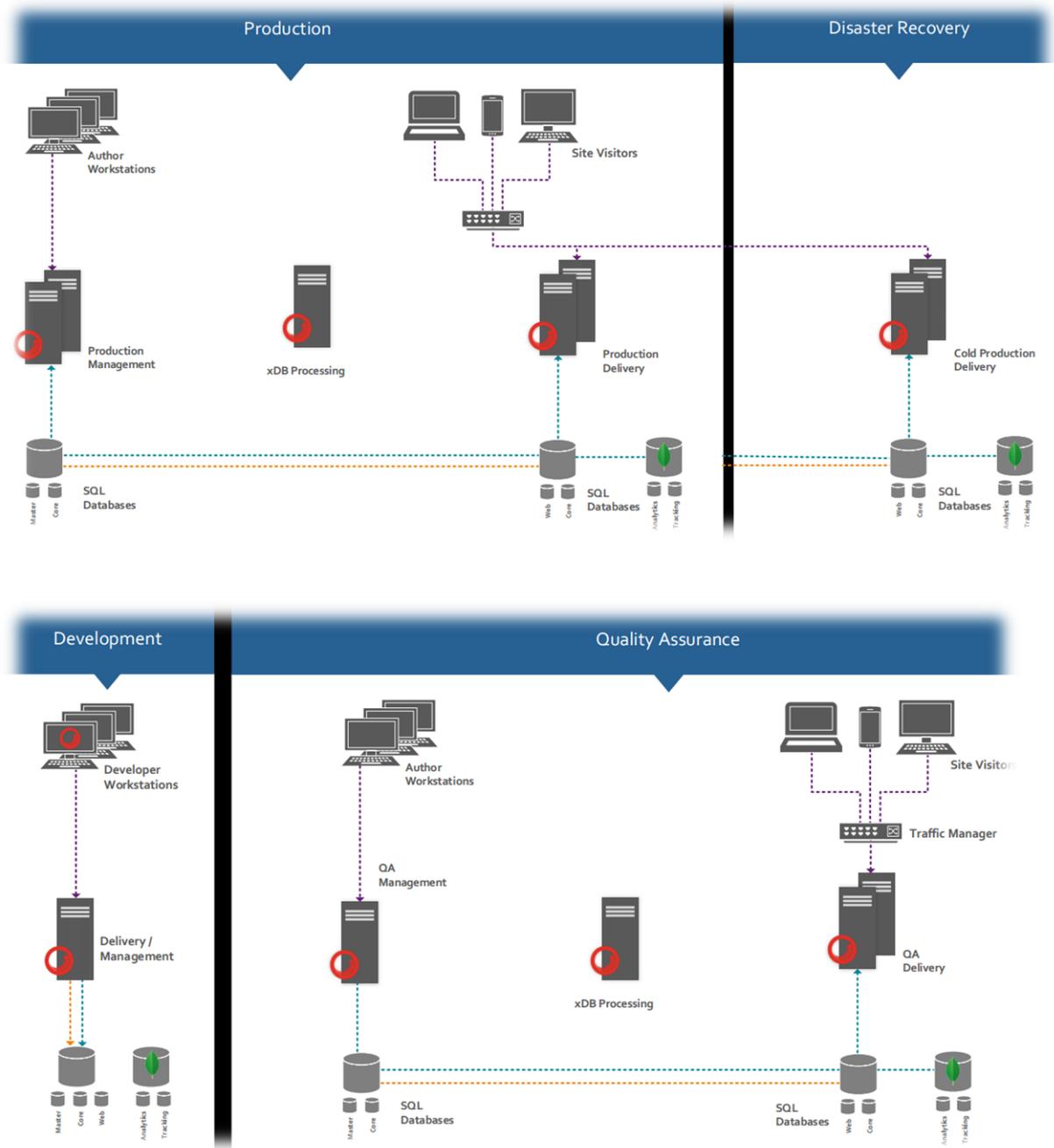
Select Workload Describe Workload Configure Environment Review Cost Submit Request Build Info

	Delivery environment which serves requested pages and media assets to site visitors. Collects analytics data in session to deliver dynamic, personalized experiences	Windows Server 2008 R2 / 2012 IIS 7 / 7.5 / 8 .NET Framework 4.5 32/64-bit OS	4 core processor* 8GB RAM*
	Management environment for content authors and marketers to create/edit content, build and publish web experiences	Windows Server 2008 R2 / 2012 IIS 7 / 7.5 / 8 .NET Framework 4.5 32/64-bit OS	4 core processor* 8GB RAM*
	Management environment dedicated to the deployment and updating of Management and Delivery environments in Azure Cloud Services	Windows Server 2008 R2 / 2012 IIS 7 / 7.5 / 8 .NET Framework 4.5 32/64-bit OS	4 core processor* 8GB RAM*
	Database in which all Sitecore content, configurations and analytics reporting data is stored	SQL Server 2008 R2 / 2012	4 core processor* 8GB RAM*
	Database in which all Sitecore analytics data is collected.	MongoDB 2.6.x	4 core processor* 8GB RAM*

This document details a hosting environment for a Sitecore site including Dev, QA, Production and DR on the AWS EC2 platform based on a very typical configuration environment.

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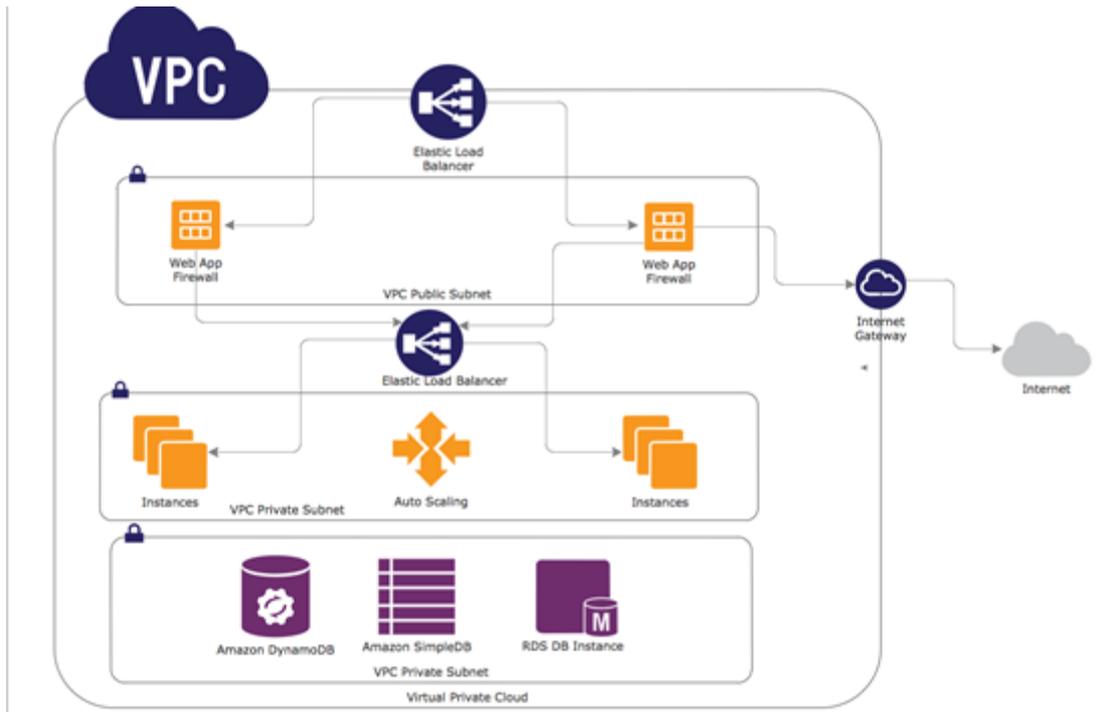


## Sitecore Installation on AWS

The AWS platform offers multiple flexible options for hosting and operating a robust Sitecore WCMS. This document details a hosting environment for the Sitecore site including Dev, QA, Production and DR on the AWS EC2 platform based on a very typical configuration environment. The Sitecore recommended server sizes are translated below into corresponding instance types in the AWS EC2 environment. AWS has published a Well-Architected Framework (WAF) that captures best practices and requires following the established best practices for ensuring the confidentiality, integrity and availability of the hosted solution. Typical activities involved in hosting on AWS include:

- Network access engineering using VPN, SSH, Dedicated Connection
- Optimal cloud virtual machine selection based on workload to optimize performance & cost
- High-availability design through the use of multiple regions and data center availability zones
- Strong network and access isolation using a multi-zone architecture within a virtual private cloud
- Cost and performance efficiency using auto- scaling, reserved & spot instance strategies

The diagram below shows a typical AWS Virtual Private Cloud (VPC) design developed by stackArmor engineers.



### AWS VPC Logical Architecture Overview

In addition to the Sitecore WCMS application components additional software components will be required to protect the environment. Some commonly required components include:

- Boundary protection using WAF/IPS and IDS protection
- Centralized access management with Domain Controller
- VPN based access to the environment
- Logging and monitoring for environment integrity using AWS Config, AWS Cloudtrail, CloudWatch, and associated services

Once the cloud hosting enclave is ready and the application is migrated and operational, it is critical to ensure secure and reliable operations.

#### 1.1 Cloud-hosting Configuration

The translated instances and types are listed below for the environment. The costs presented are provided as typical estimates but the actual cost will vary depending on actual usage and also specific instance selection based on actual load.

##### Production

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Select Workload Describe Workload Configure Environment Review Cost Submit Request Build Info

Item	Quantity	Description	Monthly Cost
Prod Management	2	Windows on m4.xlarge	\$718.84
xDB processing	1	Windows on m4.xlarge	\$359.42
Prod Delivery	2	Windows on m4.xlarge	\$718.84
Prod Delivery DR Server	2	Windows on m4.xlarge, 20 hrs / month only	\$19.64
MongoDB Database	1	Linux on m4.xlarge	\$174.95
Load Balancers	2	One each for mgmt and delivery	\$54.90
Storage (Data + OS)	470GB	Several EBS volumes for data and OS	\$86.00
Primary SQL Server database	1	RDS SQL Server Standard, with Multi-AZ, 100gb disk, license included, db.m4.large	\$1,454.06
DR Database used 20hrs/month	1	RDS SQL Server Standard	\$21.84
AWS Data transfer costs	10gb/month	Estimated data transfer costs	\$0.81
Backups / snapshots			\$80.00
		TOTAL	\$3,689.30

QA

Item	Quantity	Description	Monthly Cost
QA Management	1	Windows on m4.xlarge	\$359.42
xDB Analytics	1	Windows on m4.xlarge	\$359.42
QA Delivery	2	Windows on m4.xlarge	\$718.84
MongoDB Database	1	Linux on m4.xlarge	\$174.95
Jump Server	1	Windows on t2.large	\$98.09
VPN Server	1	Linux on t2.micro	\$9.52
NAT / NAT Gateway	1	Linux on t2.small	\$19.04
Storage for all instances	356GB	OS + Data disks	\$43.60
Load Balancer	N/A	N/A	\$18.60
SQL Server Standard	1	db.m4.large, Single-AZ, with 80gb disk, license included	\$724.37

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Directory Service	1	Microsoft Active Directory	\$292.80
		TOTAL	\$2,818.65

**Dev**

Item	Quantity	Description	Monthly Cost
Dev Delivery/mgmt/xDB server	1	Windows on m4.large, 70% utilization	\$126.20
Storage (Data + OS)	130GB	EBS Volumes	\$13.00
MongoDB Database	1	Linux on m4.xlarge	\$174.95
Dev SQL Server	1	db.t2.small, SQL Server standard license 100% utilization with 20GB data	\$107.71
		TOTAL	\$421.86

**Cold DR**

Item	Quantity	Description	Monthly Cost
DR Delivery/mgmt/xDB server	1	Windows on m4.large utilization	\$63.10
Storage (Data + OS)	390GB	EBS Volumes	\$39.00
MongoDB Database	1	Linux on m4.xlarge	\$87.48
DR SQL Server	1	RDS SQL Server Standard, 100gb disk, license included, db.m4.large with 20%	\$363.66
		TOTAL	\$553.24

**Important NOTES:**

- The costs provided above do not include Sitecore licensing costs.
- The QA environment hosting fee can be reduced by shutting the instances when not used. The current cost estimate is provided assuming 100% utilization.
- Additional savings of around 20-25% can be achieved by using Reserved Instances and performing simple optimization of the environment including monitoring utilization.

Ready to try? Jumpstart your risk-free trial with StackBuilder™

StackBuilder™ is a “Turbo Tax” like wizard for helping application owners quickly configure a fully functional AWS environment. The wizard walks the user through a series of simple questions through a 5 step process. Upon submission of the request, the user is presented with login credentials to a fully configured and operational environment ready to go. You can begin hosting Sitecore on Sitecore for less than \$500 per month to get an understanding of your hosting options, security and configuration requirements on AWS.

StackBuilder™ has been designed and developed by cloud computing experts who have spent many years implementing secure cloud hosting environments for large security focused organizations such as the US Treasury, Defence, Healthcare, Commercial and Non-profit customers. StackBuilder™ automates the entire provisioning process using an advanced capacity planning and provisioning automation engine that makes it



easy for users to leverage the power of the AWS cloud computing platform without having to get into the details of infrastructure estimation, provisioning and software media installation & configuration.

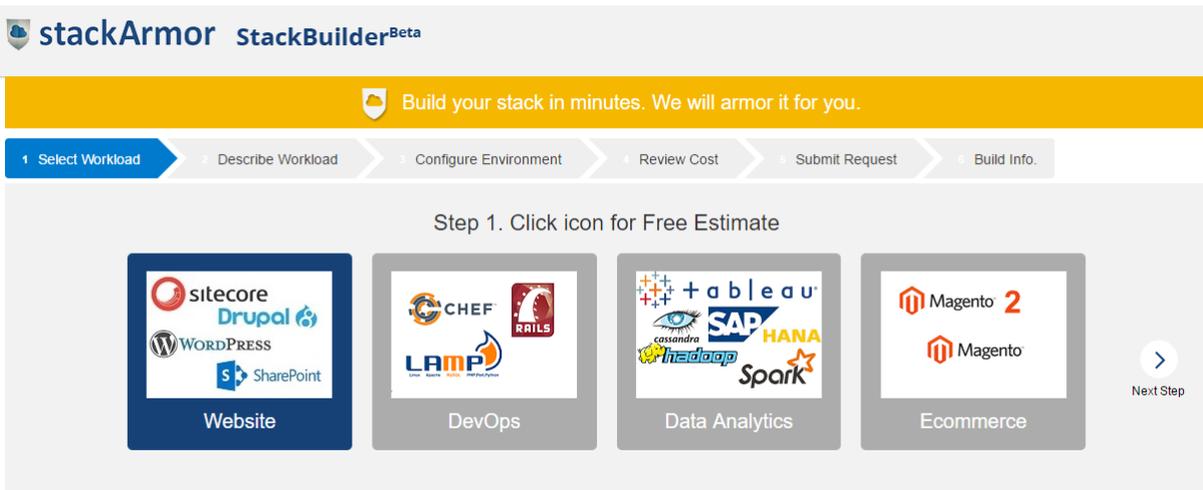
StackBuilder™ provides a rich and easy to use consumer-grade experience for non-technical users to jumpstart their projects by answering a series of simple questions. StackBuilder’s intelligent provisioning and capacity estimation engine leverages the rich set of services provided by the AWS cloud platform including wide variety of EC2 instances, Virtual Private Cloud (VPC), Auto Scaling Groups, Clustering and Elastic Load Balancers (ELB) amongst others. The user of StackBuilder™ does not have to go through the various steps associated with configuring and setting up the AWS infrastructure as they are handled automatically. This allows the user to focus on his project without waiting for costly consultants or the need for cloud infrastructure expertise.

## Deployment and usage of Sitecore on AWS using Stack Builder.

StackBuilder™ is an easy to use cloud app store front that allows users to quickly select and operate an AWS cloud hosted website, dev & test, data analytics or ecommerce service. The StackBuilder™ cloud app store allows users to quickly deploy and use the Sitecore application hosted on AWS. StackBuilder’s intelligent cloud deployment engine takes care of instance selection, AWS VPC configuration and software installation.

In order to get started with your Sitecore website on go to <https://stackbuilder.stackarmor.com>

Step 1: Select Website for the Workload and click Next



Step 2: Describe the workload environment in terms of size, security by industry and management model

stackArmor StackBuilder 

Build your stack in minutes. We will armor it for you.

1 Select Workload 2 Describe Workload 3 Configure Environment 4 Review Cost 5 Submit Request 6 Build Info.

stackArmor StackBuilderBeta

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### Step 2. Describe your Workload

**Size of Website**

Small

Website with fewer than 10,000 daily page views and 500 pages. Generally this configuration is not used for production workloads.

**Security**

Commercial

You are not seeking any special security compliance.

**Management**

Self Managed

You have a preference for using core or basic infrastructure services and will perform your own management activities such as patching, upgrades, infrastructure level monitoring.

Step 3: Configure environment by selecting stack – Sitecore

stackArmor StackBuilderBeta

Build your stack in minutes. We will armor it for you.

1 Select Workload 2 Describe Workload 3 Configure Environment 4 Review Cost 5 Submit Request 6 Build Info.

### Step 3. Configure your Environment

**Select your Stack**

Sitecore



**Stack Description:**

Sitecore is a popular enterprise content management system and multichannel marketing. Sitecore software licensing costs are not included in the estimates provided.

Step 4: Review Hosting Cost inclusive of software and maintenance fees

stackArmor StackBuilderBeta

Build your stack in minutes. We will armor it for you.

1 Select Workload 2 Describe Workload 3 Configure Environment 4 Review Cost 5 Submit Request 6 Build Info.

### Step 4. Review Estimated Cost

**Select your utilization**

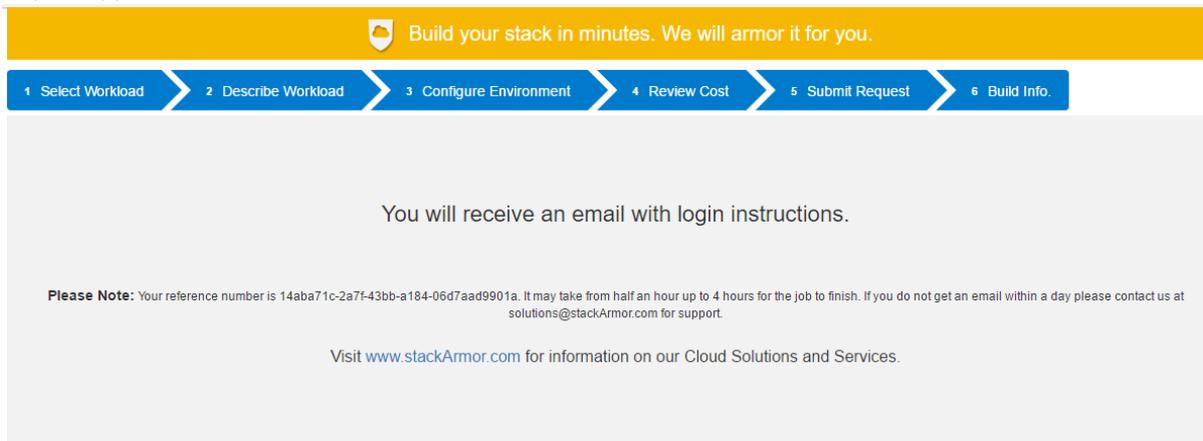
Medium - Mainly business hc

Role	Type	Instances
Web Front End Server / Front End Server	m4.large	1
Non-contract Monthly		\$91.51
Annual Contract Monthly		\$68.45



**Step 5:** Fill out form and submit request to provision environment. Once, the environment has been provisioned you will get an email with the access URL and a User Name & Password.

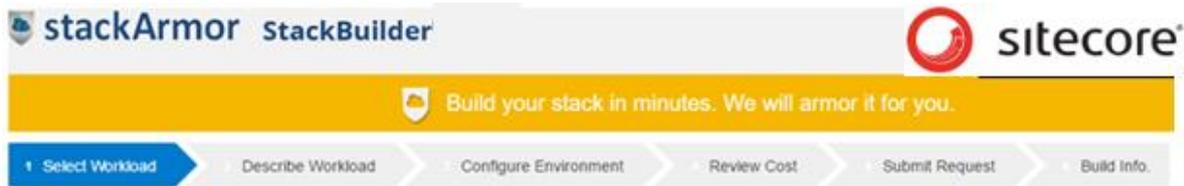
**Step 6:** The login instructions for your Sitecore application will be emailed to you. Use the information to Login to your application.



## Conclusion

AWS offers a rich hosting and operations platform for the Sitecore WCMS that helps customers easily scale and secure their data. Key benefits include:

- Achieve faster on boarding and enablement of the Sitecore website with the AWS on-demand infrastructure.
- Seamlessly integrate a Sitecore website in to the Amazon Virtual Private Cloud (VPC) and rapidly evaluate and test the solution.
- Scale resources up or down as necessary. Pay only for the infrastructure resources used without any long term contracts or commitments.
- Rapidly deploy the Sitecore website on the cloud, and leverage an on-demand pricing model for AWS IaaS.



Call us for a risk-free offer to evaluate Sitecore on AWS at (888) 964-1644 or send us an email at [solutions@stackarmor.com](mailto:solutions@stackarmor.com)

## References

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<http://www.sitecore.net>

## About stackArmor

stackArmor is staffed with experienced cloud solution architects that have many years of experience in cloud migration and operations, cybersecurity and devops solutions for security focused customers.

We provide certified Sitecore developers and administrators to help meet your Sitecore WCMS needs. Jumpstart your Sitecore project on AWS by using <https://stackBuilder.stackArmor.com>. The company's principals have worked with large and small organizations in various sectors including Government, Financial Services, Healthcare, Non-profits and SaaS markets.

Learn more by visiting <https://www.stackarmor.com> or send us an email at [solutions@stackarmor.com](mailto:solutions@stackarmor.com)