# Exam Readiness: AWS Certified SysOps Administrator Associate Resource Links

AWS Global	https://aws.amazon.com/about-aws/global-infrastructure/
Infrastructure	
Service Limits	https://docs.aws.amazon.com/general/latest/gr/aws_service_limits.
	html
Identity and Access	https://aws.amazon.com/iam/
Management (IAM)	
IAM Policy Evaluation	https://docs.aws.amazon.com/IAM/latest/UserGuide/reference_pol
Logic	icies_evaluation-logic.html
AWS Infrastructure	https://infrastructure.aws
AWS Calculator	https://calculator.aws
AWS Service	https://docs.aws.amazon.com/general/latest/gr/aws-service-
Information	information.html

CLI Currently	https://docs.aws.amazon.com/cli/latest/reference/
Supported	https://docs.oug.opp.com/powershell/index.html
PowerShell	https://docs.aws.amazon.com/powershell/index.html
CLI User Guide	https://docs.aws.amazon.com/cli/latest/userguide/aws-cli.pdf
Systems Manager	https://aws.amazon.com/systems-manager/features/
Systems Manager -	https://docs.aws.amazon.com/systems-
State Manager	manager/latest/userguide/systems-manager-state.html#systems-
	manager-state
Systems Manager -	https://docs.aws.amazon.com/systems-
Inventory	manager/latest/userguide/systems-manager-inventory.html
AWS Tools for	https://aws.amazon.com/documentation/powershell
PowerShell	
Software	https://aws.amazon.com/getting-started/tools-sdks
Development Kits	

EC2 Instance Types	https://aws.amazon.com/ec2/instance-types/
AMIs	https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/AMIs.html
AWS Free Tier	https://aws.amazon.com/free
User Data	https://aws.amazon.com/premiumsupport/knowledge-
	center/execute-user-data-ec2
Launch Templates	http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/
	ec2-launch-templates.html
Amazon Linux AMI	https://aws.amazon.com/blogs/aws/update-on-amazon-
(original) – End of Life	linux-ami-end-of-life/

	http://docs.aws.amazon.com/AWSEC2/latest/WindowsGuide/ AMIs.html#aws-windows-ami
Spot Instance Advisor	https://aws.amazon.com/ec2/spot/instance-advisor/?nc1=h_ls

Load Balancers	https://aws.amazon.com/elasticloadbalancing/features/
Comparison	
Auto Scaling	https://aws.amazon.com/autoscaling/
How ELBs Work	https://docs.aws.amazon.com/elasticloadbalancing/latest/
	userguide/how-elastic-load-balancing-works.html
ELB – Least	https://aws.amazon.com/about-aws/whats-
Outstanding Request	new/2019/11/application-load-balancer-now-supports-least-
	outstanding-requests-algorithm-for-load-balancing-requests/
Health Checks	http://docs.aws.amazon.com\AWSEC2\latest\UserGuide\monitorin
	g-system-instance-status-check.html
Instance Termination	http://docs.aws.amazon.com/autoscaling/latest/userguide/as-
	instance-termination.html
Thrashing - CoolDown	http://docs.aws.amazon.com/AutoScaling/latest/DeveloperGuide/C
	ooldown.html
Scaling Warmup	https://docs.aws.amazon.com/autoscaling/ec2/userguide/as-
	scaling-simple-step.html#as-step-scaling-warmup
Scaling Lifecycle	http://docs.aws.amazon.com/AutoScaling/latest/DeveloperGuide/A
Hooks	utoScalingGroupLifecycle.html
Load Testing – Grinder	http://grinder.sourceforge.net/
Load Testing – Jmeter	https://jmeter.apache.org/
Load Testing – Bees	https://github.com/newsapps/beeswithmachineguns
with Machine Guns	

Lambda Latest Limits	https://docs.aws.amazon.com/lambda/latest/dg/gettingstarted-
	limits.html
Docker Engine	https://docs.docker.com/engine/reference/run/
What are Containers	https://aws.amazon.com/what-are-containers
Workshop for ECS	https://ecsworkshop.com/
Kubernetes	https://aws.amazon.com/kubernetes/
Workshop for EKS	https://eksworkshop.com/
Starting and Stopping	https://aws.amazon.com/premiumsupport/knowledge-center/start-
Instances via Lambda	stop-lambda-cloudwatch/
Lambda Limits	https://docs.aws.amazon.com/lambda/latest/dg/limits.html
API Gateway	https://docs.aws.amazon.com/apigateway/latest/
	developerguide/welcome.html
AWS Batch –	https://www.youtube.com/watch?v=T4aAWrGHmxQ
Explained in under	
5minutes	
AWS Batch User Guide	https://docs.aws.amazon.com/batch/latest/userguide/

	Batch_GetStarted.html
AWS Batch Working	https://aws.amazon.com/blogs/machine-learning/classify-a-large-
with Amazon	number-of-images-with-amazon-rekognition-and-aws-batch
Rekognition	

Amazon RDS Backup	https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/
	CHAP_CommonTasks.BackupRestore.html
Amazon Redshift	https://aws.amazon.com/redshift/features
Amazon Neptune	https://aws.amazon.com/neptune/features
Amazon Elasticache	https://aws.amazon.com/elasticache/details
Database Migration	https://aws.amazon.com/dms
Service	
Schema Conversion	https://aws.amazon.com/dms/schema-conversion-tool/
Tool	

VPC Peering	https://aws.amazon.com/about-aws/whats-
	new/2017/11/announcing-support-for-inter-region-vpc-peering/
VPD Endpoints	https://docs.aws.amazon.com/vpc/latest/userguide/vpc-
	endpoints.html
Elastic Network	https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-
Interfaces (ENI)	eni.html
Using the ENI	https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-
	eni.html#AvailableIpPerENI
Networking Workshop	https://networking.aworkshop.io/
Source Repo for	https://github.com/geseib/awsnetworkshop
Networking Workshop	
AWS Direct Connect	https://aws.amazon.com/directconnect/partners/
(DX) Partners	
CIDR addressing	https://cidr.xyz
VPC IP Addressing	https://docs.aws.amazon.com/vpc/latest/userguide/vpc-ip-
	addressing.html
VPC Quotas	https://docs.aws.amazon.com/AmazonVPC/latest/
	UserGuide/amazon-vpc-limits.html#vpc-limits-vpcs-subnets
Inter-Region VPC	https://aws.amazon.com/about-aws/whats-
Peering	new/2017/11/announcing-support-for-inter-region-vpc-peering/
VPC Peering Security	https://docs.aws.amazon.com/vpc/latest/peering/vpc-peering-
Groups	security-groups.html
VPC Peering	http://docs.aws.amazon.com/AmazonVPC/latest/
Configurations	PeeringGuide/invalid-peering-configurations.html
Transit Gateway	https://aws.amazon.com/transit-gateway/_
VPC Network	http://docs.aws.amazon.com/AmazonVPC/latest/
Administrator Guide	NetworkAdminGuide/Welcome.html
VPN CloudHub	https://docs.aws.amazon.com/vpn/latest/

	s2svpn/VPN_CloudHub.html
NAT Instance versus	https://docs.aws.amazon.com/vpc/latest/userguide/
NAT Gateway	vpc-nat-comparison.html
PrivateLink	https://docs.aws.amazon.com/AmazonVPC/latest/
	UserGuide/VPC_Introduction.html#what-is-privatelink
DNS in the VPC	http://docs.aws.amazon.com/AmazonVPC/latest/
	UserGuide/vpc-dns.html
Route 53 Hosted	http://docs.aws.amazon.com/Route53/latest/
Zones	DeveloperGuide/hosted-zones-private.html
VPC Security Groups -	https://docs.aws.amazon.com/vpc/latest/userguide/amazon-vpc-
Quotas	limits.html#vpc-limits-security-groups
NACLs	http://docs.aws.amazon.com/AmazonVPC/latest/
	UserGuide/VPC_Appendix_NACLs.html
Linux Bastion Host	https://aws.amazon.com/quickstart/architecture/linux-bastion/

### Module 8

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Lifecycle Management	https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/snapshot-
for Snapshots	lifecycle.html
Instance Store	https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/InstanceS
	torage.html
S3 API Commands	https://docs.aws.amazon.com/cli/latest/userguide/cli-services-s3-
	apicommands.html
S3 Storage Classes	https://aws.amazon.com/s3/storage-classes/
create-volume CLI	https://docs.aws.amazon.com/cli/latest/reference/ec2/create-
	volume.html
attach-volume CLI	https://docs.aws.amazon.com/cli/latest/reference/ec2/attach-
	volume.html
EBS-optimized	https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-
Volumes	optimized.html
EBS Incremental	https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSSnaps
Snapshots	hots.html
create-snapshot CLI	https://docs.aws.amazon.com/cli/latest/reference/ec2/create-
	snapshot.html
copy-snapshot CLI	https://docs.aws.amazon.com/cli/latest/reference/ec2/copy-
	snapshot.html
Snapshots Lifecycle	https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/snapshot-
	lifecycle.html
Instance Store	https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/InstanceS
	torage.html
Adding Instance Store	https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/add-
Volumes	instance-store-volumes.html

EFS – Elastic File	https://docs.aws.amazon.com/efs/latest/ug/whatisefs.html
System	
Event Notifications in	https://docs.aws.amazon.com/AmazonS3/latest/dev/NotificationHo
S3	wTo.html
S3 make bucket CLI	https://docs.aws.amazon.com/cli/latest/reference/s3/mb.html
S3 list (Is) CLI	https://docs.aws.amazon.com/cli/latest/reference/s3/ls.html
S3 copy CLI	https://docs.aws.amazon.com/cli/latest/reference/s3/cp.html
S3 sync CLI	https://docs.aws.amazon.com/cli/latest/reference/s3/sync.html
S3 rm CLI	https://docs.aws.amazon.com/cli/latest/reference/s3/rm.html
S3 CLI References	https://docs.aws.amazon.com/cli/latest/userguide/cli-services-s3.html
	http://docs.aws.amazon.com/cli/latest/userguide/using-s3-commands.html
S3 Storage Classes and Performance	https://aws.amazon.com/s3/storage-classes/
	https://aws.amazon.com/s3/storage-
	classes/#Performance_across_the_S3_Storage_Classes
Amazon Glacier	https://aws.amazon.com/glacier/
	http://docs.aws.amazon.com/amazonglacier/latest/dev/introduction.html
	https://docs.aws.amazon.com/amazonglacier/latest/dev/downloading-an-archive-two-steps.html
DataSync	https://aws.amazon.com/datasync/
The "Snow" Family	https://aws.amazon.com/snowball
	https://aws.amazon.com/snowcone
	https://aws.amazon.com/snowmobile

CloudWatch Concepts	https://docs.aws.amazon.com/AmazonCloudWatch/latest/monitoring/cloudwatch_concepts.html
CloudWatch Alarms	https://docs.aws.amazon.com/AmazonCloudWatch/latest/monitoring/AlarmThatSendsEmail.html
CloudWatch Agent	https://docs.aws.amazon.com/AmazonCloudWatch/latest/logs/Age
Reference	ntReference.html
Monitoring with	http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-
CloudWatch	cloudwatch-new.html
CloudWatch Pricing	http://aws.amazon.com/cloudwatch/pricing/
CloudWatch Event	https://docs.aws.amazon.com/AmazonCloudWatch/latest/events/E
Types	ventTypes.html
CloudWatch	https://docs.aws.amazon.com/AmazonCloudWatch/latest/events/S
Scheduled Events	cheduledEvents.html

CloudWatch Features	https://aws.amazon.com/cloudwatch/features
Apache Log	https://httpd.apache.org/docs/2.4/logs.html
Formatting	
CloudWatch Logs	https://docs.aws.amazon.com/AmazonCloudWatch/latest/logs/Age
Reference	ntReference.html
CloudTrail	https://docs.aws.amazon.com/awscloudtrail/latest/userguide/cloud
Configuration	trail-user-guide.html
AWS Security	https://aws.amazon.com/security/

Required Tags	https://docs.aws.amazon.com/config/latest/developerguide/
	required-tags.html
Stopinator Complete	https://aws.amazon.com/premiumsupport/knowledge-center/start-
Example	stop-lambda-cloudwatch/
AWS Trusted Advisor	https://aws.amazon.com/premiumsupport/technology/trusted-
	advisor/
Consolidated Billing	http://docs.aws.amazon.com/awsaccountbilling/latest/
	aboutv2/consolidated-billing.html
CloudWatch Billing	https://docs.aws.amazon.com/AmazonCloudWatch/latest/
Alarms	monitoring/monitor_estimated_charges_with_cloudwatch.html
AWS Trusted Advisor	https://aws.amazon.com/premiumsupport/technology/trusted-
Best Practices	advisor/best-practices/

Stacks	https://docs.aws.amazon.com/cli/latest/reference/cloudformation/create-stack.html
AWS CloudFormation Best Practices	https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/best-practices.html
Troubleshooting	https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/troubleshooting.html
Configuration Management – AMI Design	https://aws.amazon.com/answers/configuration-management/aws-ami-design
Creating an EBS- backed Linux AMI	https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/creating-an-ami-ebs.html
Configuring a Windows instance with EC2Launch	https://docs.aws.amazon.com/AWSEC2/latest/WindowsGuide/ec2la unch.html
Copying AMIs	https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/CopyingA Mls.html
	https://docs.aws.amazon.com/cli/latest/reference/ec2/copy-image.html

AWS Resources and Property Types Reference	https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/aws-template-resource-type-ref.html
CloudFormation	https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGui
Intrinsic Functions	de/intrinsic-function-reference.html
Pseudo Parameters	https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/pseudo-parameter-reference.html
Mapping	https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGui
•	de/mappings-section-structure.html
CloudFormation	http://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuid
Resources	e/resources-section-structure.html
CloudFormation Init	https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGui
	de/aws-resource-init.html
CloudFormation	https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGui
Errors and	de/troubleshooting.html
Troubleshooting	
Launching a Stack	https://docs.aws.amazon.com/cli/latest/reference/cloudformation/create-stack.html
Override	http://docs.aws.amazon.com/cli/latest/reference/cloudformation/continue-update-rollback.html
	http://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuid e/using-cfn-updating-stacks-continueupdaterollback.html
CloudFormation Best Practices	http://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuid e/best-practices.html
	https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGui
	de/using-cfn-stack-exports.html
	https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGui
	de/what-is-cfnstacksets.html
CloudFormation	https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGui
WaitCondition	de/aws-properties-waitcondition.html

## **Additional Resources, Tools, and Links**

- Compute Abstractions on AWS: A Visual Story
- AWS Well-Architected Learn, measure, and build using architectural best practices
- AWS Well-Architected Framework

- Updates to the Well-Architected Framework (July 2020)
- AWS Well-Architected Tool Review Workloads Against Best Practices
- AWS Well-Architected Tool DEMO
- Amazon EC2 Instance Types
- Spot Instance Advisor
- Amazon EC2 Auto Scaling Lifecycle Hooks
- Running high-scale web applications on Amazon EC2 Spot Instances
- Amazon EBS Volume Types
- Recovering files from an Amazon EBS volume backup
- Amazon Aurora Backtrack Turn Back Time
- Best Practices for DynamoDB
- Best Practices for Designing and Using Partition Keys Effectively
- Building resiliency at scale at Tinder with Amazon ElastiCache
- Introducing Amazon Elasticsearch Service as a target in AWS Database Migration Service
- Migration Complete Amazon's Consumer Business Just Turned off its Final Oracle
   <u>Database</u>
- Scaling Your Amazon RDS Instance Vertically and Horizontally
- Right-size Amazon RDS instances at scale based on Oracle performance metrics
- Amazon S3 + Amazon CloudFront: A Match Made in the Cloud
- How to set up a CloudFront distribution for Amazon S3
- Overview of Managing Access on S3
- New AWS Storage Gateway Hardware Appliance
- Using static IP addresses for Application Load Balancers
- New Application Load Balancer Simplifies Deployment with Weighted Target Groups
- How to securely publish Internet applications at scale using Application Load Balancer and AWS PrivateLink
- Debugging tool for network connectivity from Amazon VPC
- VPC sharing: A new approach to multiple accounts and VPC management
- Multiple Region Multi-VPC Connectivity
- Working with Direct Connect Gateways
- AWS Direct Connect Partners
- How do I provision an AWS Direct Connect connection?
- <u>Building a Serverless Dynamic DNS System with AWS</u>
- How do I create an IAM policy to control access to Amazon EC2 resources using tags?
- Simplify granting access to your AWS resources by using tags on AWS IAM users and roles
- Writing IAM Policies: Grant Access to User-Specific Folders in an Amazon S3 Bucket
- Now Create and Manage AWS IAM Roles More Easily with the Updated IAM Console
- Guidelines for protecting your AWS account while using programmatic access
- Creating a Billing Alarm to Monitor Your Estimated AWS Charges
- How to better monitor your custom application metrics using Amazon CloudWatch Agent
- CloudWatch Search Expression Examples
- CloudWatch Logs Subscription Consumer + Elasticsearch + Kibana Dashboards

- Running Scripts from GitHub and Amazon S3
- Validating AWS CloudFormation Templates
- Amazon CloudFront Dynamic Content Delivery
- Implementation Considerations Learn Caching Design Patterns
- Caching Content Based on Query String Parameters
- AWS Serverless Application Model
- Firecracker Lightweight Virtualization for Serverless Computing
- Chaos Monkey
- Netflix's Simian Army
- Netflix's Conformity Monkey (now OSS) for Watching Configurations

#### **Architecture Reference & Tools**

- AWS Quick Starts
- AWS Solutions
- AWS Simple Monthly Calculator
- AWS Pricing Calculator
- The Amazon Builders' Library
- AWS Samples
- AWS CloudFormation Sample Templates
- AWS SAM Serverless Application Repository
- AWS Geek Cloud Diagrams & Notes
- [TOOLS] CloudPing
- [TOOLS] AWS Policy Generator
- [TOOLS] S3 Transfer Acceleration Speed Comparison Tool
- [TOOLS] AWS Global Accelerator Speed Comparison
- [TOOLS] Amazon WorkSpaces Connection Health Check
- [TOOLS] Web Identity Federation Playground
- [TOOLS] AWS Elastic Load Balancer Demos
- [TOOLS] Amazon S3 Find and Forget
- [TOOLS unofficial] JMESPath
- [TOOLS unofficial] AWS IP Ranges
- [TOOLS unofficial] <u>Cloudcraft Create smart AWS diagrams</u>
- [TOOLS unofficial] Bees with Machine Guns!
- [TOOLS unofficial] The Grinder
- [TOOLS unofficial] Apache JMeter
- [TOOLS unofficial] CloudFormation Lint: CFN Nag
- [TOOLS unofficial] CloudFormation Lint: CFripper
- [TOOLS unofficial] Awesome Honeypots
- [TOOLS unofficial] Modern Honey Network
- [TOOLS unofficial] Rhino Security Labs Pacu
- [TOOLS unofficial] Rhino Security Labs CloudGoat

- [TOOLS unofficial] Rhino Security Labs Cloud Container Attack
- [TOOLS unofficial] Console Recorder for AWS
- [TOOLS unofficial] AWS CloudFront CDN Edge Locations
- [TOOLS unofficial] Lambda Load Testing
- [TOOLS unofficial] MySQL Samples
- [TOOLS unofficial] Third-Party Tool to Create Visualizations of Security Groups

#### **Workshops & Labs**

- [LABS] AWS Qwiklabs
- [LABS] AWS Well-Architected Labs
- [LABS] VMware Cloud on AWS
- [LABS] <u>Self-paced Labs</u>
- [Workshop] AWS Cloud Champion
- [Workshop] AWSome AWS Workshops
- [Workshop] Networking Workshop Transit Gateway and Traffic Mirroring
- [Workshop] <u>Amazon EC2 Spot Instances Workshop</u>
- [Workshop] <u>Amazon CloudWatch</u>
- [Workshop] SSM & Config
- [Workshop] Amazon FSx Workshop
- [Workshop] Amazon ECS Workshop for AWS Fargate
- [Workshop] <u>Amazon EKS Workshop</u>
- [Workshop] Amazon Lightsail Workshop
- [Workshop] Amazon DynamoDB Labs
- [Workshop] Amazon Aurora Labs for MySQL
- [Workshop] CloudEndure Deep Dive Workshop
- [Workshop] Migration and Modernization Workshop Guide
- [Workshop] Kinesis Streaming Analytics Workshop
- [Workshop] Workshop: Choose Your Own SAML Adventure
- [Workshop] <u>Landing Zone Workshop</u>
- [Workshop] <u>Security Workshops Permission Boundaries: How to Truly Delegate</u> Permissions on AWS
- [Workshop] <u>Security Workshops Data Protection</u>, <u>Detection</u>, <u>Identity</u>, <u>Threat Detection</u>
- [Workshop] <u>AWS Protecting Workloads Workshops</u>
- [Workshop] Getting Hands on with Amazon GuardDuty
- [Workshop] Integrating security into your container pipeline
- [Workshop] <u>DevSecOps with Snyk</u>
- [Workshop] Microsoft Workloads Immersion Day
- [Workshop] Learn Python On AWS Workshop
- [Workshop unofficial] Welcome to the flAWS challenge
- [Workshop unofficial] Welcome to the flAWS 2 challenge
- [Workshop unofficial] Play with Docker
- [Workshop unofficial] Hello Kubernetes w/ Minikube
- [SLIDES] <u>Technical Essentials on AWS</u>

- [EBOOK] Hands-On AWS Penetration Testing with Kali Linux
- [FILES] Security Engineering on AWS script lab 2
- [FILES] Developing on AWS Additional Resources
- [FILES] Developing on AWS Solutions for Labs
- [FILES] AWSome Days Additional Resources
- [VIDEO-LABS] How to use QwikLabs
- [VIDEO-LABS] AWS Technical Essentials
- [VIDEO-LABS] AWS Cloud Practitioner Essentials
- [VIDEO-LABS] Architecting on AWS
- [VIDEO-LABS] Systems Operations on AWS
- [VIDEO-LABS] Developing on AWS
- [VIDEO-LABS] <u>Security Engineering on AWS</u>
- [VIDEO-LABS] Planning and Designing Database on AWS
- [VIDEO-LABS] Deep Learning on AWS
- [VIDEO-LABS] Moving to AWS Serverless
- [VIDEO-LABS] Advanced Architecting on AWS
- [VIDEO-LABS] IoT in Scale: IoT Solution using AWS Services

#### **GENERAL LINKS**

- AWS News Blog
- AWS YouTube channel
- Reinvent Videos
- AWS Service Health Dashboard
- A digital tour of an AWS data center
- AWS re:Invent 2016 | Amazon Global Network Overview with James Hamilton
- Service Availability by Region
- Completing the Netflix Cloud Migration (Feb 2016)
- <u>Diagramming and Budgeting tool that is still early in development but shows great promise</u>