## 100 Days of DevOps — Day 47-Introduction to **Amazon Elastic File System (EFS)**

Get started

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System (EFS) What is Amazon EFS?

Welcome to Day 47 of 100 Days of DevOps, Focus for today is Amazon Elastic File

an EFS file system and configure your instances to mount the file system. You can

allow port 2049.

Type (i)

All traffic

Protocol (i)

Description (i)

Outbound

Security group rules:

Inbound

Type (i)

NFS

Add Rule

VPC (i)

TCP

Protocol (i)

**EFS-SG** 

vpc-00a47166980edea70 | Lab VPC

Port Range (i)

2049

use an EFS file system as a common data source for workloads and applications running on multiple instances. Step1: Create a security group to access your AWS EFS Filesystem

To enable traffic between EC2 instance and EFS Filesystem we must need to

Amazon EFS provides scalable file storage for use with Amazon EC2. You can create

• On the EC2 client side, we must need to allow outbound access to Port 2049. As we are allowing all the outbound traffic so this pre-requisite is already met.

**EFSClient** vpc-00a47166980edea70 sq-033f9a86f656a3071 **EFSClient EFS Client** 

Port Range (i)

Security Group: sg-033f9a86f656a3071 Description Inbound Outbound Edit

Destination (i)

0.0.0.0/0

Description (i)

Description (i)

e.g. SSH for Admin I



Create Security Group × Security group name (i) **EFS-SG** 

Source (i)

•

\$ sg-033f9a86f656a3071

Create Cancel \* Type : Should be NFS \* Source: Rather than opening it for the entire subnet, we are only opening it for EFS Client Security Group Step2: Create an Amazon EFS FileSystem EFS FileSystem can be mounted to multiple EC2 instances running in different availability zone with the same region. These instances use mount targets

created in each Availability Zone to mount the filesystem using the standard

NOTE: All the instances where we are trying to mount the Filesystem must be the

An Amazon EFS file system is accessed by EC2 instances running inside one of your VPCs. Instances connect to a file system by using a network interface called a mount target. Each mount target

Instances connect to a file system by using mount targets you create. We recommend creating a mount target in each of your VPC's Availability Zones so that EC2 instances across your VPC can

IP address

Automatic /

Automatic /

Security groups

sg-0c92a44498b9621ba - EFS-SG ×

sg-0c92a44498b9621ba - EFS-SG ×

<u>https://us-west-2.console.aws.amazon.com/efs</u> → Create file system

vpc-00a47166980edea... Create mount targets

subnet-083994816423d5136 - Lab VPC Public Subnet

subnet-01ae147c05fc8cda1 - Lab VPC Private Subnet 2

Network File System v4.1(NFS v4.1).

part of the same VPC.

Configure file system access

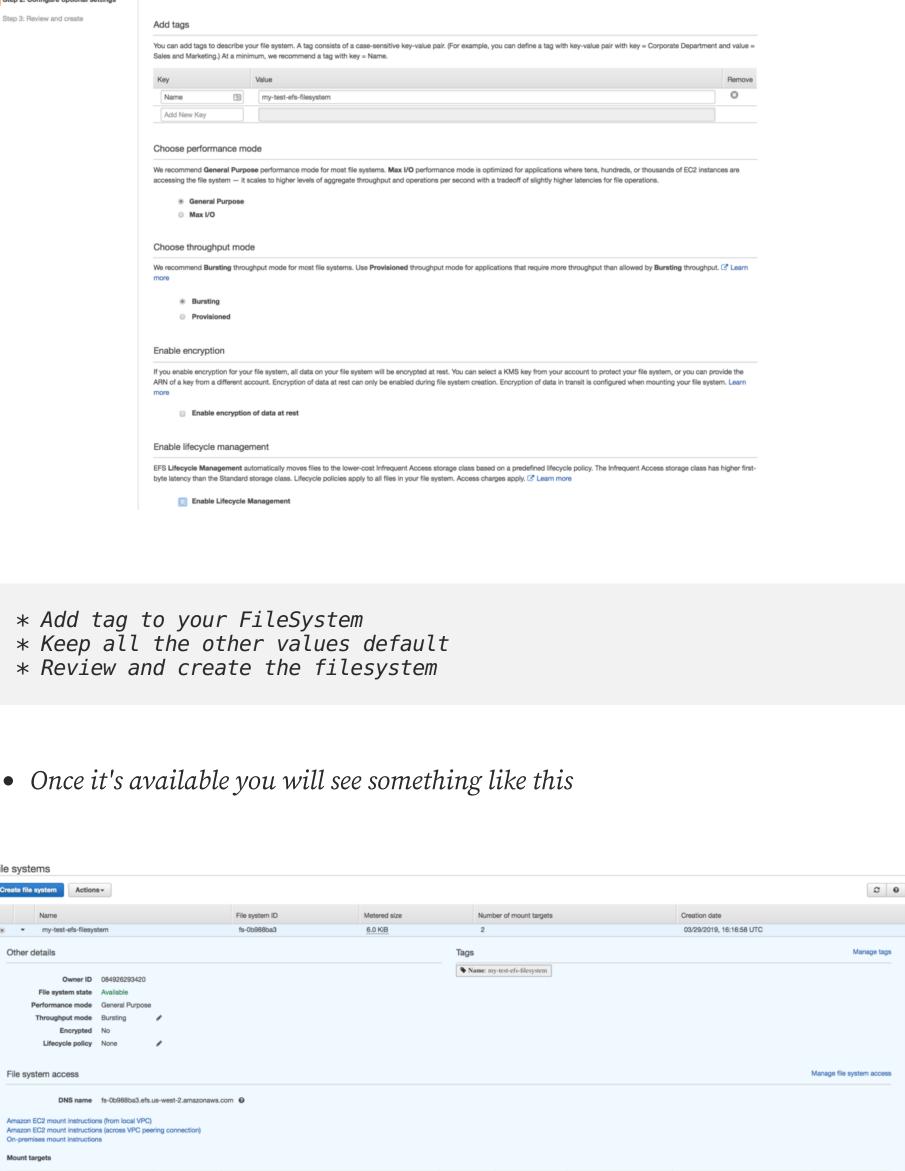
access the file system.

Availability Zone

us-west-2a

us-west-2b

has an IP address, which we assign automatically or you can specify.



tmpfs 0 517M 0% /dev/shm 5 tmpfs 517M 8.4G 1.5G 6.8G 18% / /dev/xvda1 ext4 fs-0b988ba3.efs.us-west-2.amazonaws.com:/ nfs4 9.3E 0 9.3E 0% /mnt efs\_filesystem hosted with | by GitHub view raw

Looking forward from you guys to join this journey and spend a minimum an hour

every day for the next 100 days on DevOps work and post your progress using any of

Facebook: https://www.facebook.com/groups/795382630808645/

Slack: <u>https://devops-myworld.slack.com/messages/CF41EFG49/</u>

D-day is just one day away and finally, this is a continuation of the post(I posted a month

[ec2-user@ip-10-0-1-81 ~]\$ sudo mount -t nfs4 -o nfsvers=4.1,rsize=1048576,wsize=1048576

Type

devtmpfs 507M

Size Used Avail Use% Mounted on

66k 506M

1% /dev

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Filesystem

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Reference

earlier)

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Mar 28, 2019

**Amazon Glacier** 

medium.com

100 Days of DevOps — Day 0

More from Prashant Lakhera

devtmpfs

[ec2-user@ip-10-0-1-81 ~]\$ df -TH

Twitter: <u>@100daysofdevops</u> OR <u>@lakhera2015</u>

Medium: <a href="https://medium.com/@devopslearning">https://medium.com/@devopslearning</a>

GitHub Link: <a href="https://github.com/100daysofdevops">https://github.com/100daysofdevops</a>

Get an email whenever Prashant Lakhera publishes.

AWS Community Builder, Ex-Redhat, Author, Blogger, YouTuber, RHCA, RHCDS,

100 Days of DevOps — Day 46-Introduction to

100 Days of DevOps — Day 45-Simple Backup

Solution using S3, Glacier and VPC Endpoint

Welcome to Day 46 of 100 Days of DevOps, Focus for today is Amazon

Glacier What is Amazon Glacier? Data Archiving Solution It's designed...

RHCE, Docker Certified, 4XAWS, CCNA, MCP, Certified Jenkins, Terraform Certified,

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Welcome to Day 45 of 100 Days of DevOps, Focus for today is Simple Backup Solution using S3, Glacier and VPC Endpoint So this is what I a...

AWS 2 min read

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Welcome to Day 43 of 100 Days of DevOps, Focus for today is

100 Days of DevOps — Day 42-Audit your AWS **Environment** Welcome to Day 42 of 100 Days of DevOps, Focus for today is Audit your AWS Environment. On Day 40 I discussed AWS config which is used to...

Mar 26, 2019 100 Days of DevOps — Day 44-S3 Cross Region Replication(CRR) Welcome to Day 44 of 100 Days of DevOps, Focus for today is S3 Cross Mar 25, 2019 100 Days of DevOps — Day 43- Introduction to EC2 Introduction to EC2. Elastic Compute Cloud(EC2) is the virtual server in the AWS cloud. EC2 virtual server also referred to as an instance and E...  $\Box$ AWS 6 min read

File systems Create file system Actions → Availability Zone Subnet IP address Mount target ID Network interface ID Mount target state eni-0d5ac009cf09d37d2 subnet-01ae147c05fc8cda1 - Lab VPC Private Subnet 2 10.0.4.210 sq-0c92a44498b9621ba - EFS-SG us-west-2b fsmt-c006eb68 Available fsmt-c106eb69 eni-07312948678fd0278 sg-0c92a44498b9621ba - EFS-SG us-west-2a subnet-083994816423d5136 - Lab VPC Public Subnet 10.0.1.135 Now if click on the Amazon EC2 mount instructions(from local VPC), that will give you the detailed instruction which package to install and how to mount the filesystem Amazon EC2 mount instructions (from local VPC) sudo apt-get install nfs-common Mounting your file system Open an SSH client and connect to your EC2 instance. (Find out how to connect). 2. Create a new directory on your EC2 instance, such as "efs". sudo mkdir efs 3. Mount your file system with a method listed following. If you need encryption of data in transit, use the EFS mount helper and the TLS mount option. Mounting considerations Using the EFS mount helper: sudo mount -t efs fs-0b988ba3:/ efs • Using the EFS mount helper and the TLS mount option: sudo mount -t efs -o tls fs-0b988ba3:/ efs · Using the NFS client: sudo mount -t nfs4 -o nfsvers=4.1,rsize=1048576,wsize=1048576,hard,timeo=600,retrans=2,noresvport fs-0b988ba3.efs.us-west-2.amazonaws.com:/ efs If you can't to connect, see our troubleshooting documentation. Close

Create file system Configure optional settings Step 2: Configure optional settings

AWS 5 min read

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