

# Amazon EFS Overview

## 1 What Is Amazon EFS?

Amazon Elastic File System (EFS) is like a shared filing cabinet in the cloud where you can store files for your apps or websites. It grows or shrinks automatically as you add or remove files, so you don't need to worry about running out of space. For example, a photo-sharing website can use EFS to store user-uploaded pictures. It works with Amazon tools like EC2 (virtual computers), Lambda (serverless apps), or ECS (app containers), making it easy for developers to share files across their projects. It's like a magic folder that's always available and handles all the hard work for you.

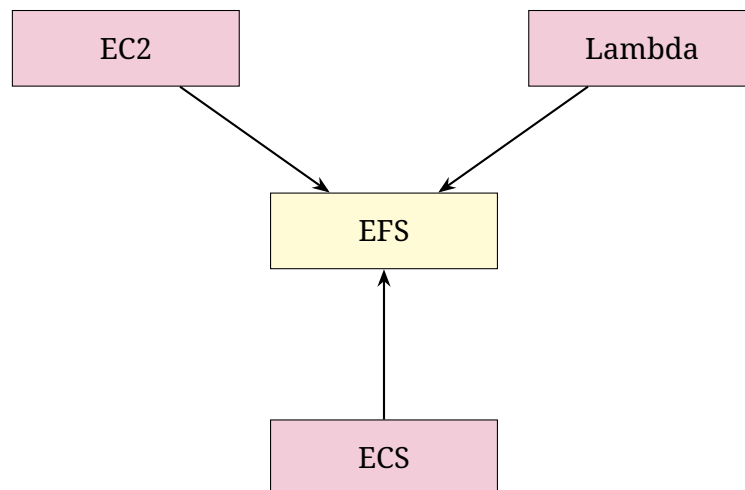


Figure 1: EFS with Amazon Tools

## 2 Types of Storage

EFS offers two ways to store your files:

- **Regional:** Saves your files in multiple locations (called Availability Zones) to keep them safe. If one location has a problem, your files are still available. This is great for important apps, like a bank's website that needs to stay online.
- **One Zone:** Stores files in one location to save money. It's less safe, as a problem in that location could affect your files, but good for less critical data, like a startup's test files.

Choosing the right type depends on how important your files are and your budget.

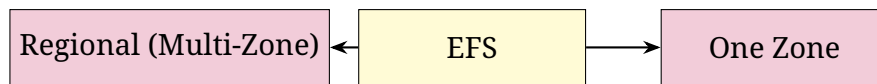


Figure 2: Storage Types

### 3 Speed Options

EFS has two ways to control how fast your files are accessed:

- **General Purpose:** Super fast for apps that need quick access, like a news website loading articles instantly. It's best for things users interact with a lot.
- **Elastic:** Automatically adjusts speed based on how busy your app is. For example, if your shopping app gets a rush of orders on Black Friday, EFS speeds up to handle it, then slows down to save money when it's quiet.

This means your app runs smoothly without you having to tweak settings all the time.

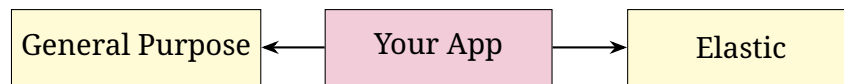


Figure 3: Speed Options

### 4 Saving Money

EFS helps you save money by moving files you don't use often to cheaper storage, like putting old books in a basement instead of a living room shelf. It does this automatically with a system called lifecycle management. For example, if your app stores user photos but some haven't been viewed in months, EFS moves them to a low-cost area. This is great for startups or small businesses that want to keep costs down while still having plenty of storage.

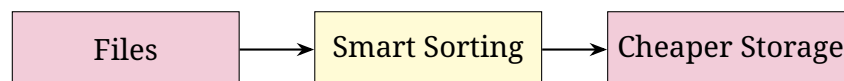


Figure 4: Saving Money Process

### 5 Keeping Files Safe

EFS keeps your files safe with multiple layers of protection. It uses encryption to lock files, like putting them in a safe. It also has rules to control who can see or change files, so only the right people (like your team) get access. For example, a hospital using EFS for patient records can ensure only doctors see them. Plus, it works with Amazon's security tools to block hackers, making it as secure as a bank vault.

### 6 How EFS Connects

To use EFS, you create a file system (like a big folder) and connect it to your computers or apps using connection points called mount targets. Regional storage has multiple

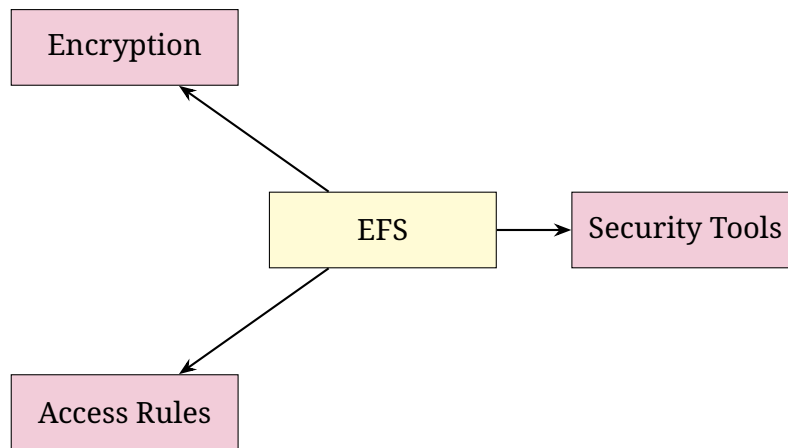


Figure 5: Security Features

connection points across different locations for safety, so if one fails, your files are still available. One Zone uses just one connection point to save money. For example, a gaming company can use EFS to store player data, and their servers in different cities can all access it. It's like a shared drive everyone on your team can use, whether they're in the office or working from home.

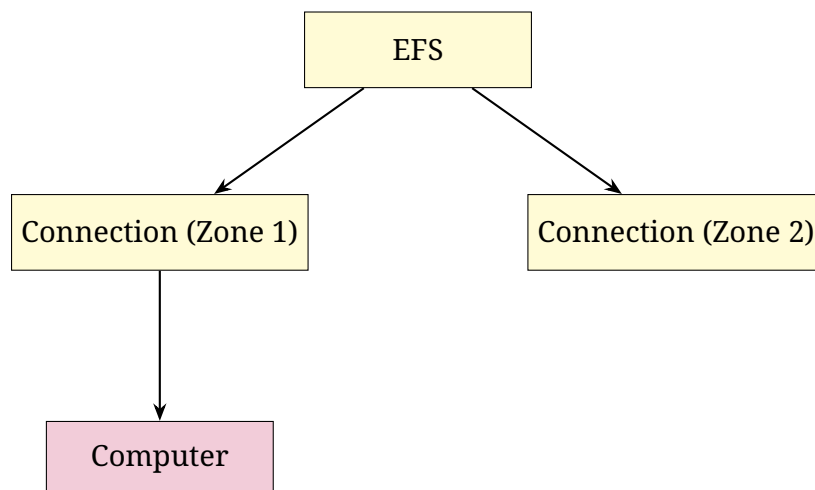


Figure 6: Connection Setup

## 7 Working with Other Tools

EFS connects with other Amazon tools to make your work easier:

- **Backup:** Automatically saves copies of your files, so you don't lose them if something goes wrong, like a server crash.
- **Connect:** Links EFS to your office computers using secure connections, great for moving files to the cloud or backing up data.
- **Access Points:** Sets rules for who can see which files, like giving only certain team members access to sensitive data.

For example, a movie studio can use EFS to store video files, back them up, and let editors access them securely from anywhere.

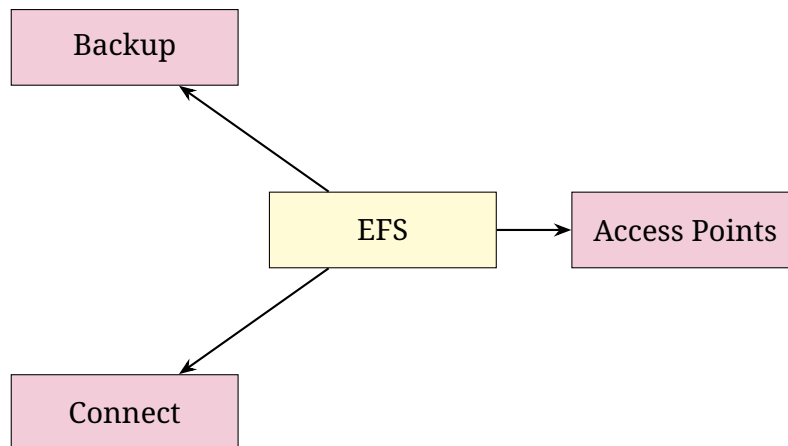


Figure 7: Tools with EFS

## 8 Storage Options

EFS has three storage types, like different shelves in your filing cabinet:

- **Standard:** For files you use often, like website images that load every day.
- **Infrequent:** For files you use a few times a year, like old reports, to save money.
- **Archive:** For files you rarely need, like backups from years ago, at the lowest cost.

EFS moves files between these automatically, so you save money without extra work.

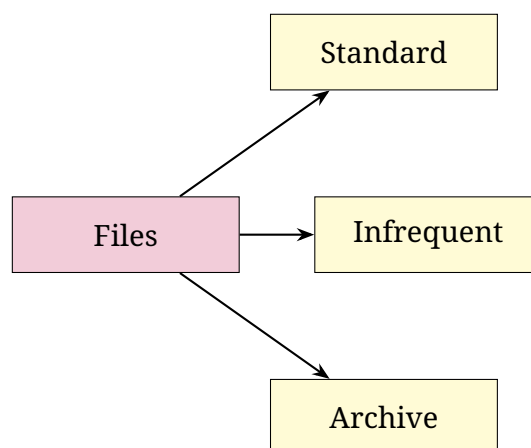


Figure 8: Storage Options

## 9 Copying Files

EFS can make a copy of your files in another region, like having a backup filing cabinet in a different city. This keeps your files safe if something happens, like a power outage in one area. For example, a retail company can store sales data in one region and have

a copy in another, so they never lose it. The copying happens automatically, and you can access the backup quickly if needed.

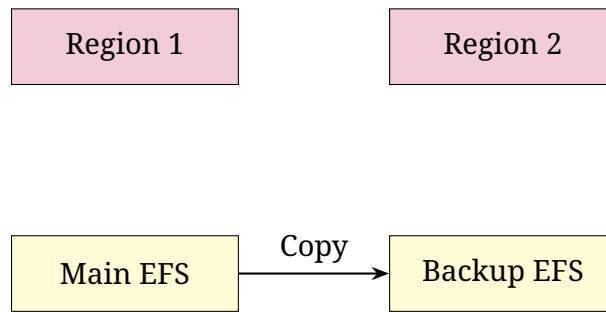


Figure 9: Copying Files Across Regions