General S3 FAQs

Q: What is Amazon S3?

Amazon S3 is object storage built to store and retrieve any amount of data from anywhere on the Internet. It's a simple storage service that offers an extremely durable, highly available, and infinitely scalable data storage infrastructure at very low costs.

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Q: What can I do with Amazon S3?

Amazon S3 provides a simple web service interface that you can use to store and retrieve any amount of data, at any time, from anywhere on the web. Using this web service, you can easily build applications that make use of Internet storage. Since Amazon S3 is highly scalable and you only pay for what you use, you can start small and grow your application as you wish, with no compromise on performance or reliability.

Amazon S3 is also designed to be highly flexible. Store any type and amount of data that you want; read the same piece of data a million times or only for emergency disaster recovery; build a simple FTP application, or a sophisticated web application such as the Amazon.com retail web site. Amazon S3 frees developers to focus on innovation instead of figuring out how to store their data.

Amazon S3 enables any developer to leverage Amazon's own benefits of massive scale with no up-front investment or performance compromises. Developers are now free to innovate knowing that no matter how successful their businesses become, it will be inexpensive and simple to ensure their data is quickly accessible, always available, and secure.

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Q: What kind of data can I store in Amazon S3?

You can store virtually any kind of data in any format. Please refer to the Amazon Web Services Licensing Agreement for details.

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Q: How much data can I store in Amazon S3?

The total volume of data and number of objects you can store are unlimited. Individual Amazon S3 objects can range in size from a minimum of 0 bytes to a maximum of 5 terabytes. The largest object that can be uploaded in a single PUT is 5 gigabytes. For objects larger than 100 megabytes, customers should consider using the Multipart Upload capability.

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otherwise access your data for any purpose outside of the Amazon S3 offering, except when required to do so by law. Please refer to the Amazon Web Services Licensing Agreement for details.

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Q: Does Amazon store its own data in Amazon S3?

Yes. Developers within Amazon use Amazon S3 for a wide variety of projects. Many of these projects use Amazon S3 as their authoritative data store and rely on it for business-critical operations.

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Q: How is Amazon S3 data organized?

Amazon S3 is a simple key-based object store. When you store data, you assign a unique object key that can later be used to retrieve the data. Keys can be any string, and they can be constructed to mimic hierarchical attributes. Alternatively, you can use S3 Object Tagging to organize your data across all of your S3 buckets and/or prefixes.

Show less

Q: How do I interface with Amazon S3?

Q: How will Amazon S3 perform if traffic from my application suddenly spikes?

Amazon S3 was designed from the ground up to handle traffic for any Internet application. Pay-as-you-go pricing and unlimited capacity ensures that your incremental costs don't change and that your service is not interrupted. Amazon S3's massive scale enables us to spread load evenly, so that no individual application is affected by traffic spikes.

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Q: Does Amazon S3 offer a Service Level Agreement (SLA)?

Yes. The Amazon S3 SLA provides for a service credit if a customer's monthly uptime percentage is below our service commitment in any billing cycle.

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AWS Regions

Q: Where is my data stored?

Show less

Q: What is an AWS Availability Zone (AZ)?

An AWS Availability Zone is an isolated location within an AWS Region. Within each AWS Region, S3 operates in a minimum of three AZs, each separated by miles to protect against local events like fires, floods, etc.

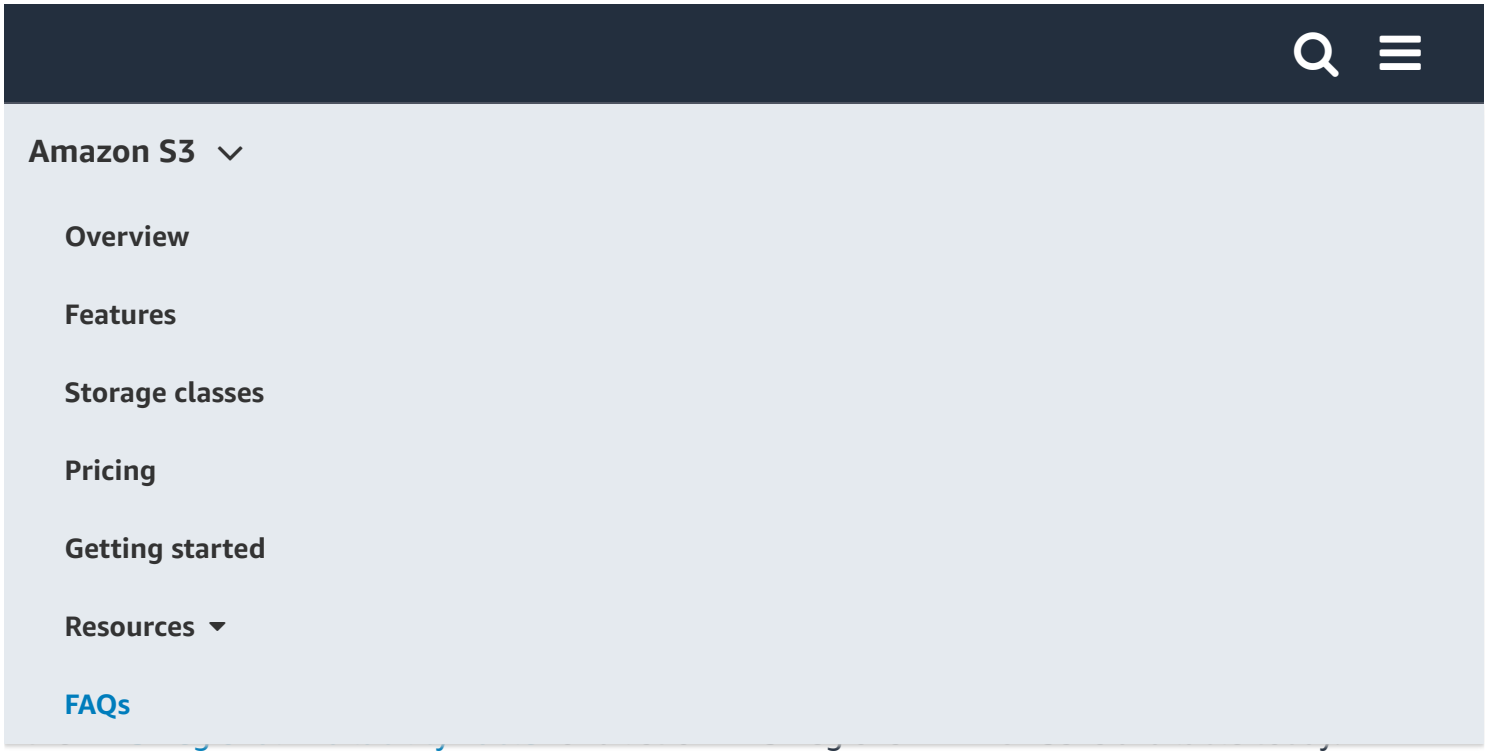
Amazon S3 Standard, S3 Standard-Infrequent Access, and S3 Glacier storage classes replicate data across a minimum of three AZs to protect against the loss of one entire AZ. This remains true in Regions where fewer than three AZs are publicly available. Objects stored in these storage classes are available for access from all of the AZs in an AWS Region.

The Amazon S3 One Zone-IA storage class replicates data within a single AZ. Data stored in this storage class is susceptible to loss in an AZ destruction event.

Show less

Q: How do I decide which AWS Region to store my data in?

There are several factors to consider based on your specific application. You may want to store your data in a Region that…



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Billing

Q: How much does Amazon S3 cost?

With Amazon S3, you pay only for what you use. There is no minimum fee. You can estimate your monthly bill using the AWS Simple Monthly Calculator.

We charge less where our costs are less. Some prices vary across Amazon S3 Regions. Billing prices are based on the location of your bucket. There is no Data Transfer charge for data transferred within an Amazon S3 Region via a COPY request. Data transferred via a COPY request between AWS Regions is charged at rates specified in the pricing section of the Amazon S3 detail page. There is no Data Transfer charge for data transferred between Amazon EC2 and Amazon S3 within the same region, for example, data transferred within the US East (Northern Virginia) Region. However, data transferred between Amazon EC2 and Amazon S3 across all other regions is charged at rates specified on the Amazon S3 pricing page, for example, data transferred between Amazon EC2 US East (Northern Virginia) and Amazon S3 US West (Northern California).

Show less

Amazon S3 storage pricing is summarized on the Amazon S3 Pricing page.

The volume of storage billed in a month is based on the average storage used throughout the month. This includes all object data and metadata stored in buckets that you created under your AWS account. We measure your storage usage in "TimedStorage-ByteHrs," which are added up at the end of the month to generate your monthly charges.

Storage Example:

Assume you store 100GB (107,374,182,400 bytes) of data in Amazon S3 Standard in your bucket for 15 days in March, and 100TB (109,951,162,777,600 bytes) of data in Amazon S3 Standard for the final 16 days in March.

At the end of March, you would have the following usage in Byte-Hours: Total Byte-Hour usage = [107,374,182,400 bytes x 15 days x (24 hours / day)] + [109,951,162,777,600 bytes x 16 days x (24 hours / day)] = 42,259,901,212,262,400 Byte-Hours.

Let's convert this to GB-Months: 42,259,901,212,262,400 Byte-Hours / 1,073,741,824 bytes per GB / 744 hours per month = 52,900 GB-Months

This usage volume crosses two different volume tiers. The monthly storage price is calculated below assuming the data is stored in the US East (Northern Virginia) Region: 50 TB Tier: 51,200 GB x $0.023 = $1,177.60 50 TB to 450 TB Tier: 1,700 GB x $0.022 = $37.40

Amazon S3 in one AWS Region to another AWS Region.

Data Transfer Out Example:
Assume you transfer 1TB of data out of Amazon S3 from the US East (Northern Virginia) Region to the Internet every day for a given 31-day month. Assume you also transfer 1TB of data out of an Amazon EC2 instance from the same region to the Internet over the same 31-day month.

Your aggregate Data Transfer would be 62 TB (31 TB from Amazon S3 and 31 TB from Amazon EC2). This equates to 63,488 GB (62 TB * 1024 GB/TB).

This usage volume crosses three different volume tiers. The monthly Data Transfer Out fee is calculated below assuming the Data Transfer occurs in the US East (Northern Virginia) Region:
10 TB Tier: 10,239 GB (10×1024 GB/TB – 1 (free)) x $0.09 = $921.51
10 TB to 50 TB Tier: 40,960 GB (40×1024) x $0.085 = $3,481.60
50 TB to 150 TB Tier: 12,288 GB (remainder) x $0.070 = $860.16

Total Data Transfer Out Fee = $921.51+ $3,481.60 + $860.16= $5,263.27

Data Requests:

Amazon S3 Request pricing is summarized on the Amazon S3 Pricing Chart.

Request Example:
Assume you transfer 10,000 files into Amazon S3 and transfer 20,000 files out of Amazon S3 each day during the month of March. Then, you delete 5,000 files on March 31st.

Data Retrieval Example:

Assume in one month you retrieve 300GB of S3 Standard-IA, with 100GB going out to the Internet, 100GB going to EC2 in the same AWS region, and 100GB going to CloudFront in the same AWS Region.

Your data retrieval fees for the month would be calculated as 300GB x $0.01/GB = $3.00. Note that you would also pay network data transfer fees for the portion that went out to the Internet.

Please see here for details on billing of objects archived to Amazon S3 Glacier.

* * Your usage for the free tier is calculated each month across all regions except the AWS GovCloud Region and automatically applied to your bill – unused monthly usage will not roll over. Restrictions apply; See offer terms for more details.

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Q: Why do prices vary depending on which Amazon S3 Region I choose?

We charge less where our costs are less. For example, our costs are lower in the US East (Northern Virginia) Region than in the US West (Northern California) Region.

Show less

Q: How am I charged for using Versioning?

day)] = 5,257,039,970,304 Byte-Hours.

Conversion to Total GB-Months
5,257,039,970,304 Byte-Hours x (1 GB / 1,073,741,824 bytes) x (1 month / 744 hours) = 6.581 GB-Month

The fee is calculated based on the current rates for your region on the Amazon S3 Pricing page.

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Q: How am I charged for accessing Amazon S3 through the AWS Management Console?

Normal Amazon S3 pricing applies when accessing the service through the AWS Management Console. To provide an optimized experience, the AWS Management Console may proactively execute requests. Also, some interactive operations result in more than one request to the service.

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Q: How am I charged if my Amazon S3 buckets are accessed from another AWS account?

Normal Amazon S3 pricing applies when your storage is accessed by another AWS Account. Alternatively, you may choose to configure your bucket as a Requester Pays bucket, in which case the requester will pay the cost of requests and downloads of your Amazon S3 data.

Security

Q: How secure is my data in Amazon S3?

Amazon S3 is secure by default. Upon creation, only the resource owners have access to Amazon S3 resources they create. Amazon S3 supports user authentication to control access to data. You can use access control mechanisms such as bucket policies and Access Control Lists (ACLs) to selectively grant permissions to users and groups of users. The Amazon S3 console highlights your publicly accessible buckets, indicates the source of public accessibility, and also warns you if changes to your bucket policies or bucket ACLs would make your bucket publicly accessible. You should enable Block Public Access for all accounts and buckets that you do not want publicly accessible.

You can securely upload/download your data to Amazon S3 via SSL endpoints using the HTTPS protocol. If you need extra security you can use the Server-Side Encryption (SSE) option to encrypt data stored at rest. You can configure your Amazon S3 buckets to automatically encrypt objects before storing them if the incoming storage requests do not have any encryption information. Alternatively, you can use your own encryption libraries to encrypt data before storing it in Amazon S3.

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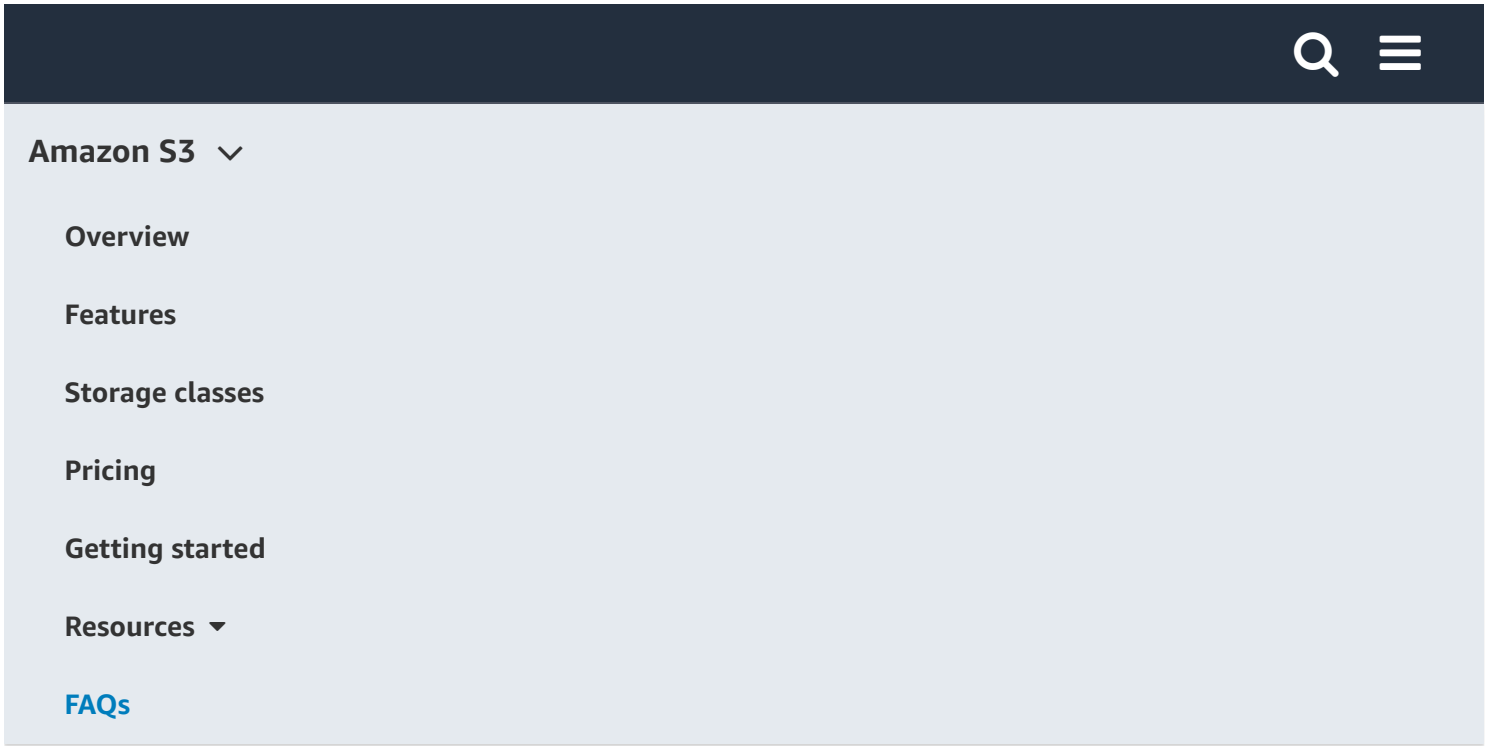

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Q: Does Amazon S3 support data access auditing?

Yes, customers can optionally configure an Amazon S3 bucket to create access log records for all requests made against it. Alternatively, customers who need to capture IAM/user identity information in their logs can configure AWS CloudTrail Data Events.

These access log records can be used for audit purposes and contain details about the request, such as the request type, the resources specified in the request, and the time and date the request was processed.

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Q: What options do I have for encrypting data stored on Amazon S3?

You can choose to encrypt data using SSE-S3, SSE-C, SSE-KMS, or a client library such as the Amazon S3 Encryption Client. All four enable you to store sensitive data encrypted at rest in Amazon S3.

SSE-S3 provides an integrated solution where Amazon handles key management and key protection using multiple layers of security. You should choose SSE-S3 if you prefer to have Amazon manage your keys.

Using an encryption client library, such as the Amazon S3 Encryption Client, you retain control of the keys and complete the encryption and decryption of objects client-side using an encryption library of your choice. Some customers prefer full end-to-end control of the encryption and decryption of objects; that way, only encrypted objects are transmitted over the Internet to Amazon S3. Use a client-side library if you want to maintain control of your encryption keys, are able to implement or use a client-side encryption library, and need to have your objects encrypted before they are sent to Amazon S3 for storage.

For more information on using Amazon S3 SSE-S3, SSE-C, or SSE-KMS, please refer to the topic on Using Encryption in the Amazon S3 Developer Guide.

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Q: Can I comply with EU data privacy regulations using Amazon S3?

Customers can choose to store all data in the EU by using the EU (Frankfurt), EU (Ireland), EU (London), or EU (Paris) region. It is your responsibility to ensure that you comply with EU privacy laws. Please see the AWS GDPR Center for more information.

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Q: Where can I find more information about security on AWS?

You can limit access to your bucket from a specific Amazon VPC Endpoint or a set of endpoints using Amazon S3 bucket policies. S3 bucket policies now support a condition, aws:sourceVpce, that you can use to restrict access. For more details and example policies, read Using VPC Endpoints.

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Q: What is Amazon Macie?

Amazon Macie is an AI-powered security service that helps you prevent data loss by automatically discovering, classifying, and protecting sensitive data stored in Amazon S3. Amazon Macie uses machine learning to recognize sensitive data such as personally identifiable information (PII) or intellectual property, assigns a business value, and provides visibility into where this data is stored and how it is being used in your organization. Amazon Macie continuously monitors data access activity for anomalies, and delivers alerts when it detects risk of unauthorized access or inadvertent data leaks.

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Q: What can I do with Amazon Macie?

You can use Amazon Macie to protect against security threats by continuously monitoring your data and account credentials. Amazon Macie gives you an automated and low touch way to discover and classify your business data. It provides controls via templated Lambda functions to

to data in the Amazon S3 bucket. For more information, go to the Amazon Macie User Guide.

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Durability & Data Protection

Q: How durable is Amazon S3?

Amazon S3 Standard, S3 Standard–IA, S3 One Zone-IA, and S3 Glacier are all designed to provide 99.999999999% durability of objects over a given year. This durability level corresponds to an average annual expected loss of 0.000000001% of objects. For example, if you store 10,000,000 objects with Amazon S3, you can on average expect to incur a loss of a single object once every 10,000 years. In addition, Amazon S3 Standard, S3 Standard-IA, and S3 Glacier are all designed to sustain data in the event of an entire S3 Availability Zone loss.

As with any environment, the best practice is to have a backup and to put in place safeguards against malicious or accidental deletion. For S3 data, that best practice includes secure access permissions, Cross-Region Replication, versioning, and a functioning, regularly tested backup.

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corruption using redundant data. In addition, the service calculates checksums on all network traffic to detect corruption of data packets when storing or retrieving data.

Show less

Q: What is Versioning?

Versioning allows you to preserve, retrieve, and restore every version of every object stored in an Amazon S3 bucket. Once you enable Versioning for a bucket, Amazon S3 preserves existing objects anytime you perform a PUT, POST, COPY, or DELETE operation on them. By default, GET requests will retrieve the most recently written version. Older versions of an overwritten or deleted object can be retrieved by specifying a version in the request.

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Q: Why should I use Versioning?

Amazon S3 provides customers with a highly durable storage infrastructure. Versioning offers an additional level of protection by providing a means of recovery when customers accidentally overwrite or delete objects. This allows you to easily recover from unintended user actions and application failures. You can also use Versioning for data retention and archiving.

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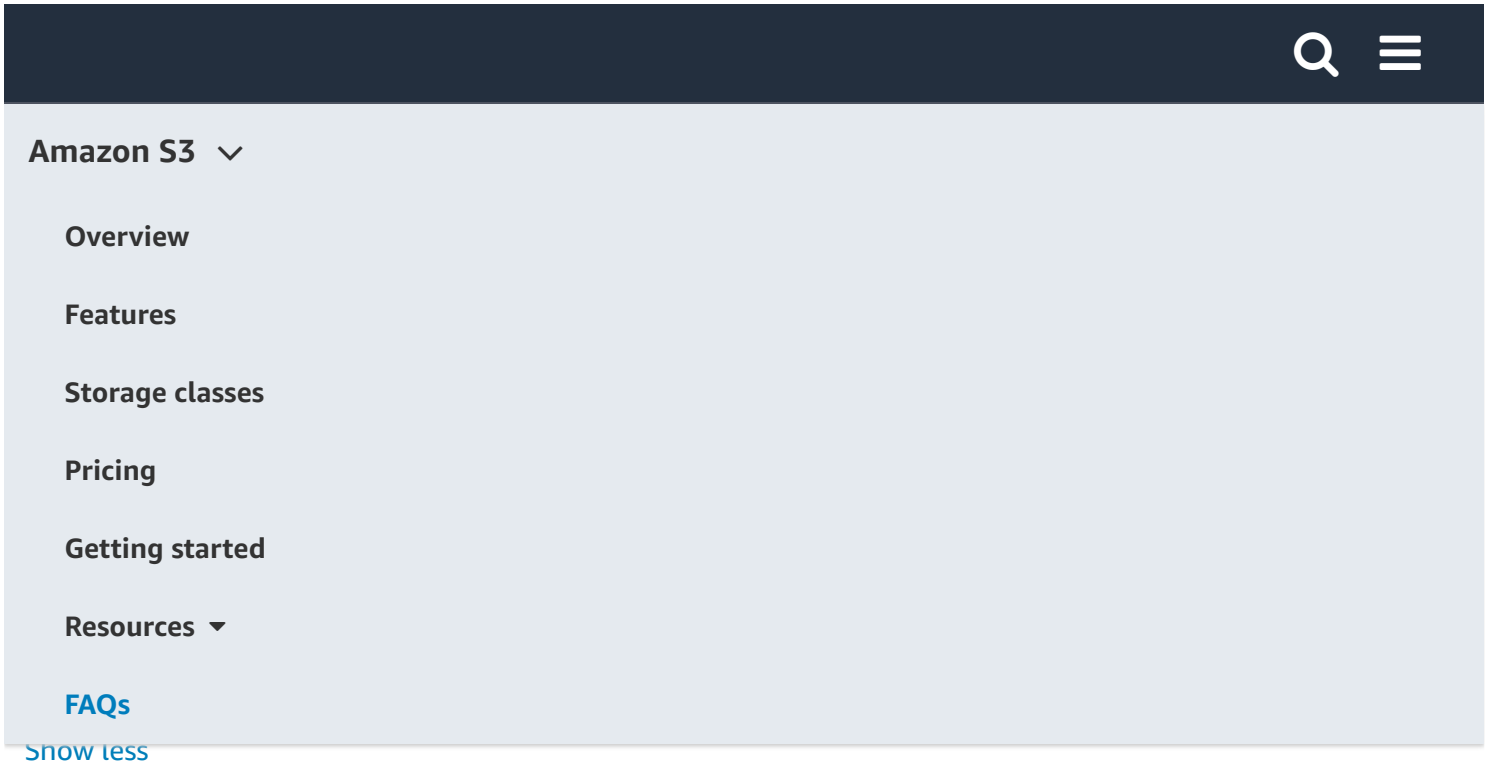

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Q: Can I setup a trash, recycle bin, or rollback window on my Amazon S3 objects to recover from deletes and overwrites?

You can use Lifecycle rules along with Versioning to implement a rollback window for your Amazon S3 objects. For example, with your versioning-enabled bucket, you can set up a rule that archives all of your previous versions to the lower-cost Glacier storage class and deletes them after 100 days, giving you a 100-day window to roll back any changes on your data while lowering your storage costs.

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Q: How can I ensure maximum protection of my preserved versions?

Versioning's Multi-Factor Authentication (MFA) Delete capability can be used to provide an additional layer of security. By default, all requests to your Amazon S3 bucket require your AWS account credentials. If you enable Versioning with MFA Delete on your Amazon S3 bucket, two forms of authentication are required to permanently delete a version of an object: your AWS account credentials and a valid six-digit code and serial number from an authentication device in your physical possession. To learn more about enabling Versioning with MFA Delete, including how to purchase and activate an authentication device, please refer to the Amazon S3 Technical Documentation.

object is preserved as an older version and the 5 GB object becomes the most recently written version of the object within your bucket. At the end of the month:

Total Byte-Hour usage
[4,294,967,296 bytes x 31 days x (24 hours / day)] + [5,368,709,120 bytes x 16 days x (24 hours / day)] = 5,257,039,970,304 Byte-Hours.

Conversion to Total GB-Months
5,257,039,970,304 Byte-Hours x (1 GB / 1,073,741,824 bytes) x (1 month / 744 hours) = 6.581 GB-Month

The fee is calculated based on the current rates for your region on the Amazon S3 Pricing Page.

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S3 Intelligent-Tiering

Q: What is S3 Intelligent-Tiering?

Amazon S3 Intelligent-Tiering (S3 Intelligent-Tiering) is an S3 storage class for data with unknown access patterns or changing access patterns that are difficult to learn. It is the first cloud storage class that delivers automatic cost savings by moving objects between two access tiers when access

difficult to learn. It is ideal for data sets where you may not be able to anticipate access patterns. S3 Intelligent-Tiering can also be used to store new data sets where, shortly after upload, access is frequent, but decreases as the data set ages. Then you can move the data set to S3 One Zone-IA or archive it to S3 Glacier.

Show less

Q: What performance does S3 Intelligent-Tiering offer?

S3 Intelligent-Tiering provides the same performance as S3 Standard storage.

Show less

Q: How durable and available is S3 Intelligent-Tiering?

S3 Intelligent-Tiering is designed for the same 99.999999999% durability as S3 Standard. S3 Intelligent-Tiering is designed for 99.9% availability, and carries a service level agreement providing service credits if availability is less than our service commitment in any billing cycle.

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Q: How do I get my data into S3 Intelligent-Tiering?

Q: How will my latency and throughput performance be impacted as a result of using S3 Intelligent-Tiering

You should expect the same latency and throughput performance as S3 Standard when using S3 Intelligent-Tiering.

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Q: Is there a minimum duration for S3 Intelligent-Tiering?

S3 Intelligent-Tiering has a minimum storage duration of 30 days, which means that data that is deleted, overwritten, or transitioned to a different S3 Storage Class before 30 days will incur the normal usage charge plus a pro-rated charge for the remainder of the 30-day minimum.

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Q: Is there a minimum object size for S3 Intelligent-Tiering?

S3 Intelligent-Tiering has no minimum billable object size, but objects smaller than 128KB are not eligible for auto-tiering and will always be stored at the frequent access tier rate.

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Q: Can I tier objects from S3 Intelligent-Tiering to the Amazon S3 Glacier storage class?

Yes

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S3 Standard-Infrequent Access (S3 Standard-IA)

Q: What is S3 Standard-Infrequent Access?

Amazon S3 Standard-Infrequent Access (S3 Standard-IA) is an Amazon S3 storage class for data that is accessed less frequently but requires rapid access when needed. S3 Standard-IA offers the high durability, throughput, and low latency of the Amazon S3 Standard storage class, with a low per-GB storage price and per-GB retrieval fee. This combination of low cost and high performance make S3 Standard-IA ideal for long-term storage, backups, and as a data store for disaster recovery. The S3 Standard-IA storage class is set at the object level and can exist in the same bucket as the S3 Standard or S3 One Zone-IA storage classes, allowing you to use S3 Lifecycle policies to automatically transition objects between storage classes without any application changes.

Show less

Q: Why would I choose to use S3 Standard-IA?

Q: How durable and available is S3 Standard-IA?

S3 Standard-IA is designed for the same 99.999999999% durability as the S3 Standard and S3 Glacier storage classes. S3 Standard-IA is designed for 99.9% availability, and carries a service level agreement providing service credits if availability is less than our service commitment in any billing cycle.

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Q: How do I get my data into S3 Standard-IA?

There are two ways to get data into S3 Standard-IA. You can directly PUT into S3 Standard-IA by specifying STANDARD_IA in the x-amz-storage-class header. You can also set Lifecycle policies to transition objects from the S3 Standard to the S3 Standard-IA storage class.

Show less

Q: Are my S3 Standard-IA objects backed by the Amazon S3 Service Level Agreement?

Yes, S3 Standard-IA is backed with the Amazon S3 Service Level Agreement, and customers are eligible for service credits if availability is less than our service commitment in any billing cycle.

Show less

Q: What charges will I incur if I change the storage class of an object from S3 Standard-IA to S3 Standard with a COPY request?

You will incur charges for an S3 Standard-IA COPY request and an S3 Standard-IA data retrieval.

Show less

Q: Is there a minimum storage duration charge for S3 Standard-IA?

S3 Standard-IA is designed for long-lived but infrequently accessed data that is retained for months or years. Data that is deleted from S3 Standard-IA within 30 days will be charged for a full 30 days. Please see the Amazon S3 pricing page for information about S3 Standard-IA pricing.

Show less

Q: Is there a minimum object storage charge for S3 Standard-IA?

S3 Standard-IA is designed for larger objects and has a minimum object storage charge of 128KB. Objects smaller than 128KB in size will incur storage charges as if the object were 128KB. For example, a 6KB object in S3 Standard-IA will incur S3 Standard-IA storage charges for 6KB and an additional minimum object size fee equivalent to 122KB at the S3 Standard-IA storage price. Please see the Amazon S3 pricing page for information about S3 Standard-IA pricing.

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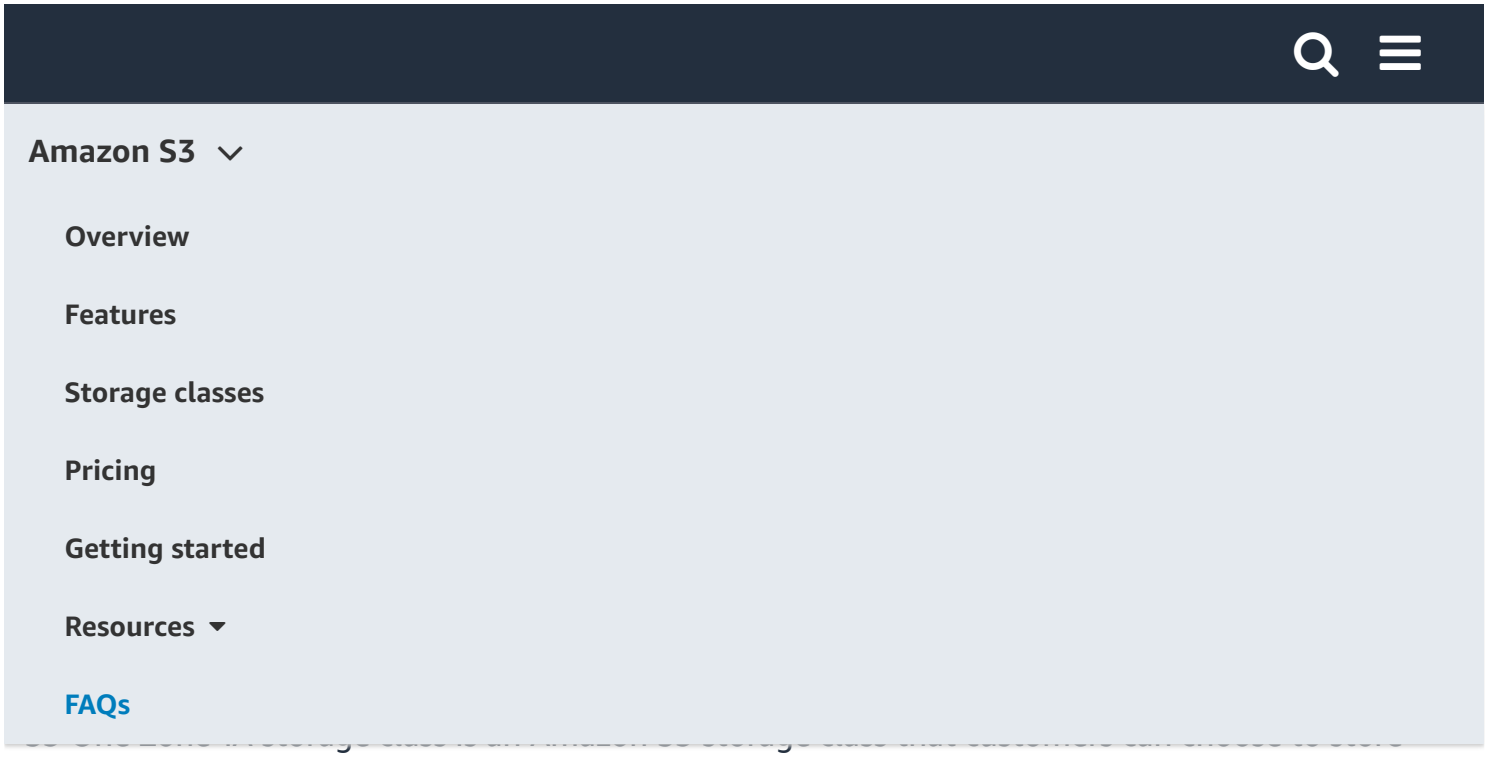

objects in a single availability zone. S3 One Zone-IA storage redundantly stores data within that single Availability Zone to deliver storage at 20% less cost than geographically redundant S3 Standard-IA storage, which stores data redundantly across multiple geographically separate Availability Zones.

S3 One Zone-IA offers a 99% available SLA and is also designed for eleven 9's of durability within the Availability Zone. But, unlike the S3 Standard and S3 Standard-IA storage classes, data stored in the S3 One Zone-IA storage class will be lost in the event of Availability Zone destruction.

S3 One Zone-IA storage offers the same Amazon S3 features as S3 Standard and S3 Standard-IA and is used through the Amazon S3 API, CLI and console. S3 One Zone-IA storage class is set at the object level and can exist in the same bucket as S3 Standard and S3 Standard-IA storage classes. You can use S3 Lifecycle policies to automatically transition objects between storage classes without any application changes.

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Q: What use cases are best suited for S3 One Zone-IA storage class?

Customers can use S3 One Zone-IA for infrequently-accessed storage, like backup copies, disaster recovery copies, or other easily re-creatable data.

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providing the added benefit of elasticity of storage and the Amazon S3 feature set.

Show less

Q: What is the availability SLA for S3 One Zone-IA storage class?

S3 One Zone-IA offers a 99% availability SLA. For comparison, S3 Standard offers a 99.9% availability SLA and S3 Standard-Infrequent Access offers a 99% availability SLA. As with all S3 storage classes, S3 One Zone-IA storage class carries a service level agreement providing service credits if availability is less than our service commitment in any billing cycle. See the Amazon S3 Service Level Agreement.

Show less

Q: How will using S3 One Zone-IA storage affect my latency and throughput?

You should expect similar latency and throughput in S3 One Zone-IA storage class to Amazon S3 Standard and S3 Standard-IA storage classes.

Show less

Q: How am I charged for using S3 One Zone-IA storage class?

Q: Is an S3 One Zone-IA "Zone" the same thing as an AWS Availability Zone?

Yes. Each AWS Region is a separate geographic area. Each region has multiple, isolated locations known as Availability Zones. The Amazon S3 One Zone-IA storage class uses an individual AWS Availability Zone within the region.

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Q: Are there differences between how Amazon EC2 and Amazon S3 work with Availability Zone-specific resources?

Yes. Amazon EC2 provides you the ability to pick the AZ to place resources, such as compute instances, within a region. When you use S3 One Zone-IA, S3 One Zone-IA assigns an AWS Availability Zone in the region according to available capacity.

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Q: Can I have a bucket that has different objects in different storage classes and Availability Zones?

zones are on different flood plains, earthquake fault zones, and geographically separated for fire protection. S3 Standard and S3 Standard-IA storage classes offer protection against these sorts of disasters by storing your data redundantly in multiple Availability Zones. S3 One Zone-IA offers protection against equipment failure within an Availability Zone, but it does not protect against the loss of the Availability Zone, in which case, data stored in S3 One Zone-IA would be lost. Using S3 One Zone-IA, S3 Standard, and S3 Standard-IA options, you can choose the storage class that best fits the durability and availability needs of your storage.

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Amazon S3 Glacier

Q: Why is Amazon Glacier now called Amazon S3 Glacier?

Customers have long thought of Amazon Glacier, our backup and archival storage service, as a storage class of Amazon S3. In fact, a very high percentage of the data stored in Amazon Glacier today comes directly from customers using S3 Lifecycle policies to move cooler data into Amazon Glacier. Now, Amazon Glacier is officially part of S3 and will be known as Amazon S3 Glacier (S3 Glacier). All of the existing Glacier direct APIs continue to work just as they have, but we've now made it even easier to use the S3 APIs to store data in the S3 Glacier storage class.

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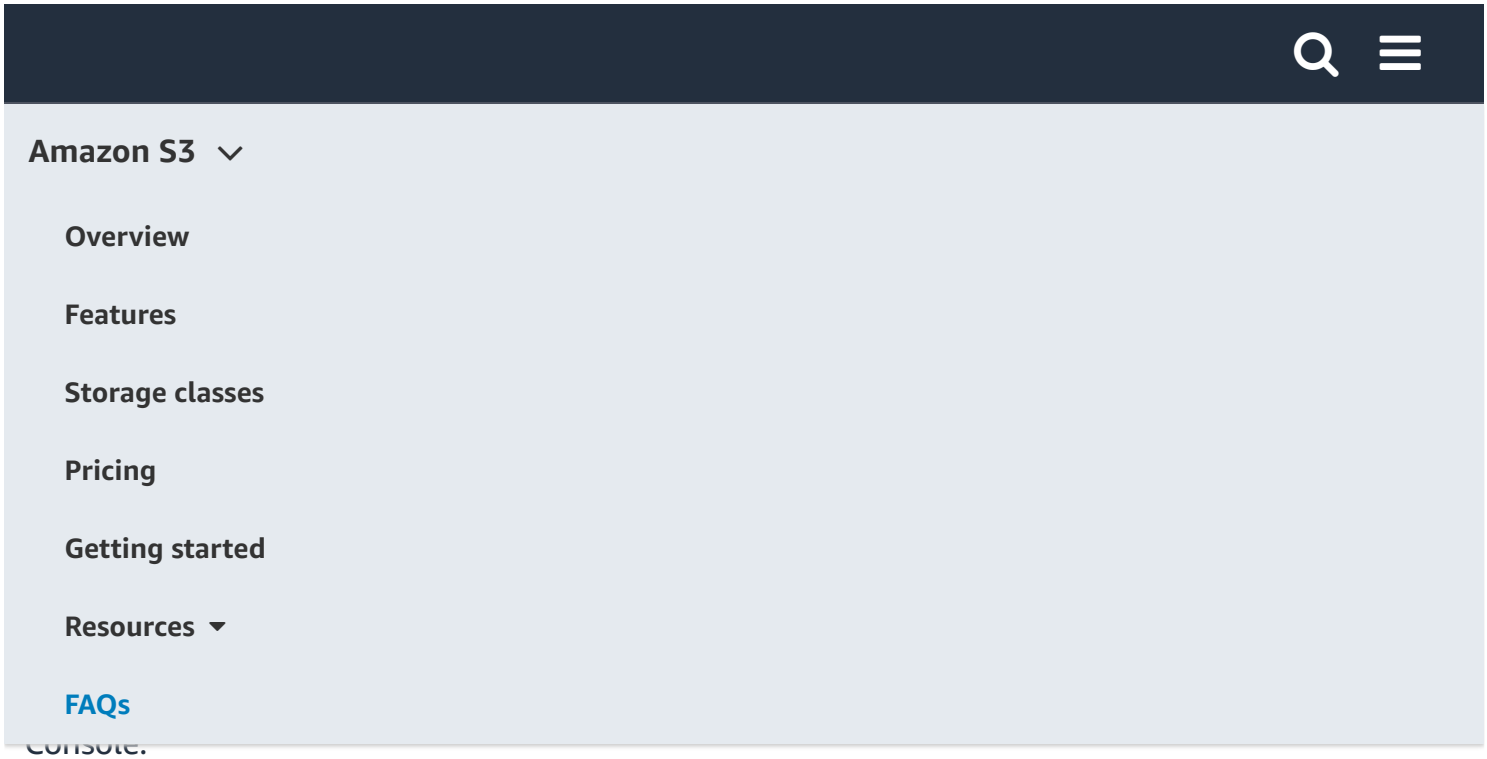
an Amazon S3 Lifecycle policy, S3 PUT to Glacier allows you to use S3 APIs to upload to the S3 Glacier storage class on an object-by-object basis. There are no transition delays and you control the timing. This is also a good option if you want your application to make storage class decisions without having to set a bucket-level policy.

You can use Lifecycle rules to automatically archive sets of Amazon S3 objects to S3 Glacier based on object age. Use the Amazon S3 Management Console, the AWS SDKs, or the Amazon S3 APIs to define rules for archival. Rules specify a prefix and time period. The prefix (e.g. "logs/") identifies the object(s) subject to the rule. The time period specifies either the number of days from object creation date (e.g. 180 days) or the specified date after which the object(s) should be archived. Any S3 Standard, S3 Standard-IA, or S3 One Zone-IA objects which have names beginning with the specified prefix and which have aged past the specified time period are archived to S3 Glacier. To retrieve Amazon S3 data stored in S3 Glacier, initiate a retrieval job via the Amazon S3 APIs or Management Console. Once the retrieval job is complete, you can access your data through an Amazon S3 GET object request.

For more information on using Lifecycle rules for archival to S3 Glacier, please refer to the Object Archival topic in the Amazon S3 Developer Guide.

Show less

Q: Can I use the Amazon S3 APIs or Management Console to list objects that I've archived to Amazon S3 Glacier?



console.

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Q: How can I retrieve my objects that are archived in Amazon S3 Glacier and will I be notified when the object is restored?

To retrieve Amazon S3 data stored in the S3 Glacier storage class, initiate a retrieval request using the Amazon S3 APIs or the Amazon S3 Management Console. The retrieval request creates a temporary copy of your data in the S3 RRS or S3 Standard-IA storage class while leaving the archived data intact in S3 Glacier. You can specify the amount of time in days for which the temporary copy is stored in S3. You can then access your temporary copy from S3 through an Amazon S3 GET request on the archived object.

With restore notifications, you can now be notified with an S3 Event Notification when an object has successfully restored from S3 Glacier and the temporary copy is made available to you. The bucket owner (or others, as permitted by an IAM policy) can arrange for notifications to be issued to Amazon Simple Queue Service (SQS) or Amazon Simple Notification Service (SNS). Notifications can also be delivered to AWS Lambda for processing by a Lambda function.

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Q: How long will it take to restore my objects archived in S3 Glacier and can I upgrade an in-progress request to a faster restore speed?

Upgrade request at the Expedited tier to override the in-progress Bulk tier restore, you would be charged for two requests and the per-GB retrieval charge for the Expedited tier.

Show less

Q: What am I charged for archiving objects in Amazon S3 Glacier?

Amazon S3 Glacier storage class is priced based on monthly storage capacity and the number of Lifecycle transition requests into Amazon S3 Glacier. Objects that are archived to Amazon S3 Glacier have a minimum of 90 days of storage, and objects deleted before 90 days incur a pro-rated charge equal to the storage charge for the remaining days. See the Amazon S3 pricing page for current pricing.

Show less

Q: How is my storage charge calculated for Amazon S3 objects archived to Amazon S3 Glacier?

The volume of storage billed in a month is based on average storage used throughout the month, measured in gigabyte-months (GB-Months). Amazon S3 calculates the object size as the amount of data you stored plus an additional 32KB of Amazon S3 Glacier data plus an additional 8KB of S3 Standard storage class data. Amazon S3 Glacier requires an additional 32KB of data per object for Glacier's index and metadata so you can identify and retrieve your data. Amazon S3 requires 8KB to store and maintain the user-defined name and metadata for objects archived to Amazon S3 Glacier. This enables you to get a real-time list of all of your Amazon S3 objects, including those

You can retrieve 10GB of your Amazon S3 Glacier data per month for free with the AWS free tier. The free tier allowance can be used at any time during the month and applies to Amazon S3 Glacier Standard retrievals.

Show less

Q: How am I charged for deleting objects from Amazon S3 Glacier that are less than 90 days old?

Amazon S3 Glacier is designed for use cases where data is retained for months, years, or decades. Deleting data that is archived to Amazon S3 Glacier is free if the objects being deleted have been archived in Amazon S3 Glacier for 90 days or longer. If an object archived in Amazon S3 Glacier is deleted or overwritten within 90 days of being archived, there will be an early deletion fee. This fee is prorated. If you delete 1GB of data 30 days after uploading it, you will be charged an early deletion fee for 60 days of Amazon S3 Glacier storage. If you delete 1 GB of data after 60 days, you will be charged for 30 days of Amazon S3 Glacier storage.

Show less

Q: How much does it cost to retrieve data from Amazon S3 Glacier?

assembled into purpose-built, cost-optimized systems using AWS-developed software. S3 Glacier benefits from our ability to optimize the sequence of inputs and outputs to maximize efficiency accessing the underlying storage.

Show less

Amazon S3 Glacier Deep Archive

Q: What is S3 Glacier Deep Archive?

S3 Glacier Deep Archive is a new Amazon S3 storage class that provides secure and durable object storage for long-term retention of data that is accessed once or twice in a year. From just $0.00099 per GB-month (less than one-tenth of one cent, or about $1 per TB-month), S3 Glacier Deep Archive offers the lowest cost storage in the cloud, at prices significantly lower than storing and maintaining data in on-premises magnetic tape libraries or archiving data off-site.

Show less

Q: What use cases are best suited for S3 Glacier Deep Archive?

S3 Glacier Deep Archive is an ideal storage class to provide offline protection of your company's most important data assets, or when long-term data retention is required for corporate policy,

some of your archived data is needed in as little as 1-5 minutes using Expedited retrievals. S3 Glacier Deep Archive, in contrast, is designed for colder data that is very unlikely to be accessed, but still requires long-term, durable storage. S3 Glacier Deep Archive is up to 75% less expensive than S3 Glacier and provides retrieval within 12 hours using the Standard retrieval speed. You may also reduce retrieval costs by selecting Bulk retrieval, which will return data within 48 hours.

Show less

Q: How durable and available is S3 Glacier Deep Archive?

S3 Glacier Deep Archive is designed for the same 99.999999999% durability as the S3 Standard and S3 Glacier storage classes. S3 Glacier Deep Archive is designed for 99.9% availability, and carries a service level agreement providing service credits if availability is less than our service commitment in any billing cycle.

Show less

Q: Are my S3 Glacier Deep Archive objects backed by Amazon S3 Service Level Agreement?

Yes, S3 Glacier Deep Archive is backed with the Amazon S3 Service Level Agreement, and customers are eligible for service credits if availability is less than our service commitment in any billing cycle.

Show less

the cloud. To get started, create a new virtual tape using AWS Storage Gateway Console or API, and set the archival storage target either to S3 Glacier or S3 Glacier Deep Archive. When your backup application ejects the tape, the tape will be archived to your selected storage target.

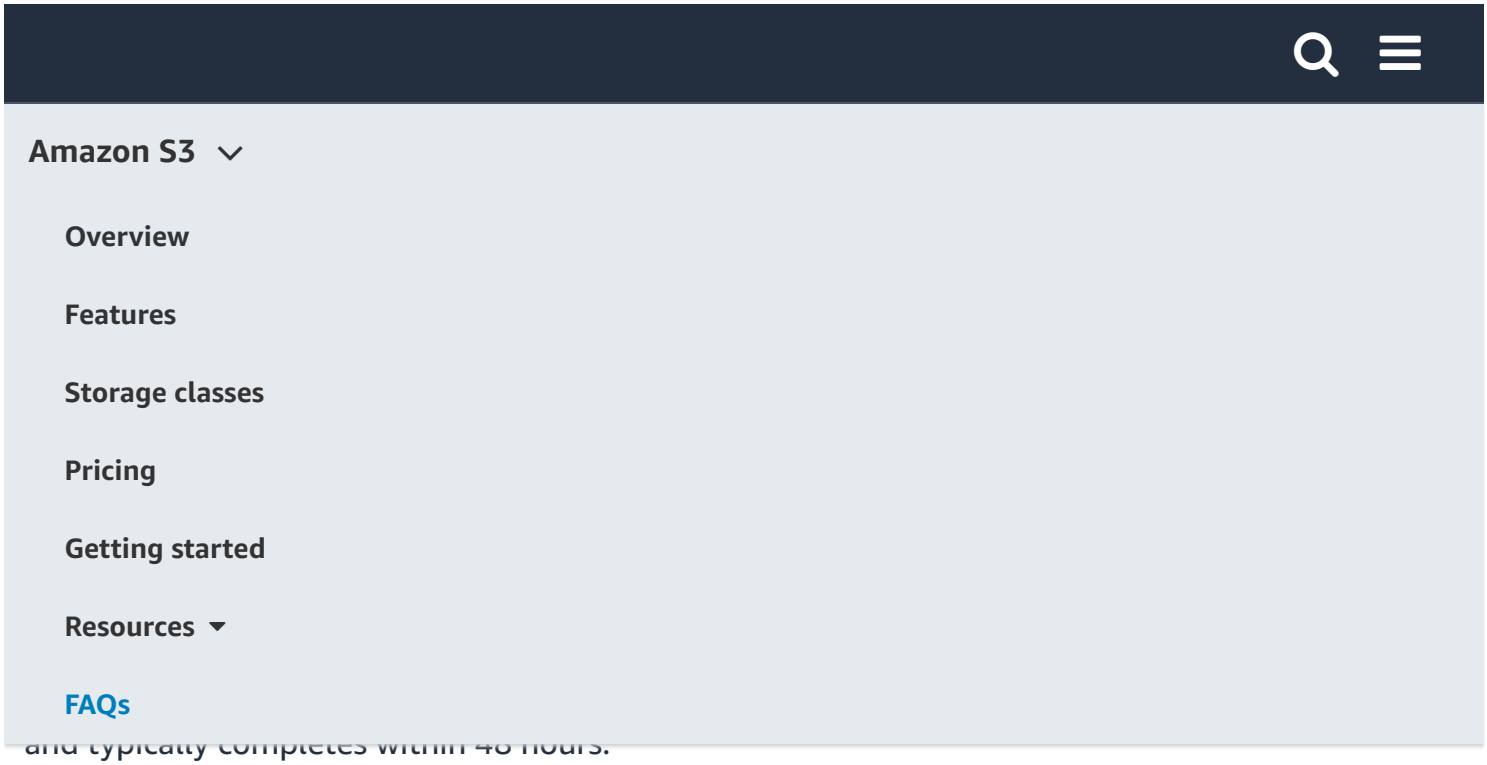
Show less

Q: How do you recommend migrating data from my existing tape archives to S3 Glacier Deep Archive?

There are multiple ways to migrate data from existing tape archives to S3 Glacier Deep Archive. You can use the AWS Tape Gateway to integrate with existing backup applications using a virtual tape library (VTL) interface. This interface presents virtual tapes to the backup application. These can be immediately used to store data in Amazon S3, S3 Glacier, and S3 Glacier Deep Archive.

You can also use AWS Snowball or Snowmobile to migrate data. Snowball and Snowmobile accelerate moving terabytes to petabytes of data into and out of AWS using physical storage devices designed to be secure for transport. Using Snowball and Snowmobile helps to eliminate challenges that can be encountered with large-scale data transfers including high network costs, long transfer times, and security concerns.

Finally, you can use AWS Direct Connect to establish dedicated network connections from your premises to AWS. In many cases, Direct Connect can reduce your network costs, increase bandwidth throughput, and provide a more consistent network experience than Internet-based connections.



and typically completes within 48 hours.

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Q: How am I charged for using S3 Glacier Deep Archive?

S3 Glacier Deep Archive storage is priced based on the amount of data you store in GBs, the number of PUT/lifecycle transition requests, retrievals in GBs, and number of restore requests. This pricing model is similar to S3 Glacier. Please see the Amazon S3 pricing page for information about S3 Glacier Deep Archive pricing.

Show less

Q: How will S3 Glacier Deep Archive usage show up on my AWS bill and in the AWS Cost Management tool?

S3 Glacier Deep Archive usage and cost will show up as an independent service line item on your monthly AWS bill, separate from your Amazon S3 usage and costs. However, if you are using the AWS Cost Management tool, S3 Glacier Deep Archive usage and cost will be included under the Amazon S3 usage and cost in your detailed monthly spend reports, and not broken out as a separate service line item.

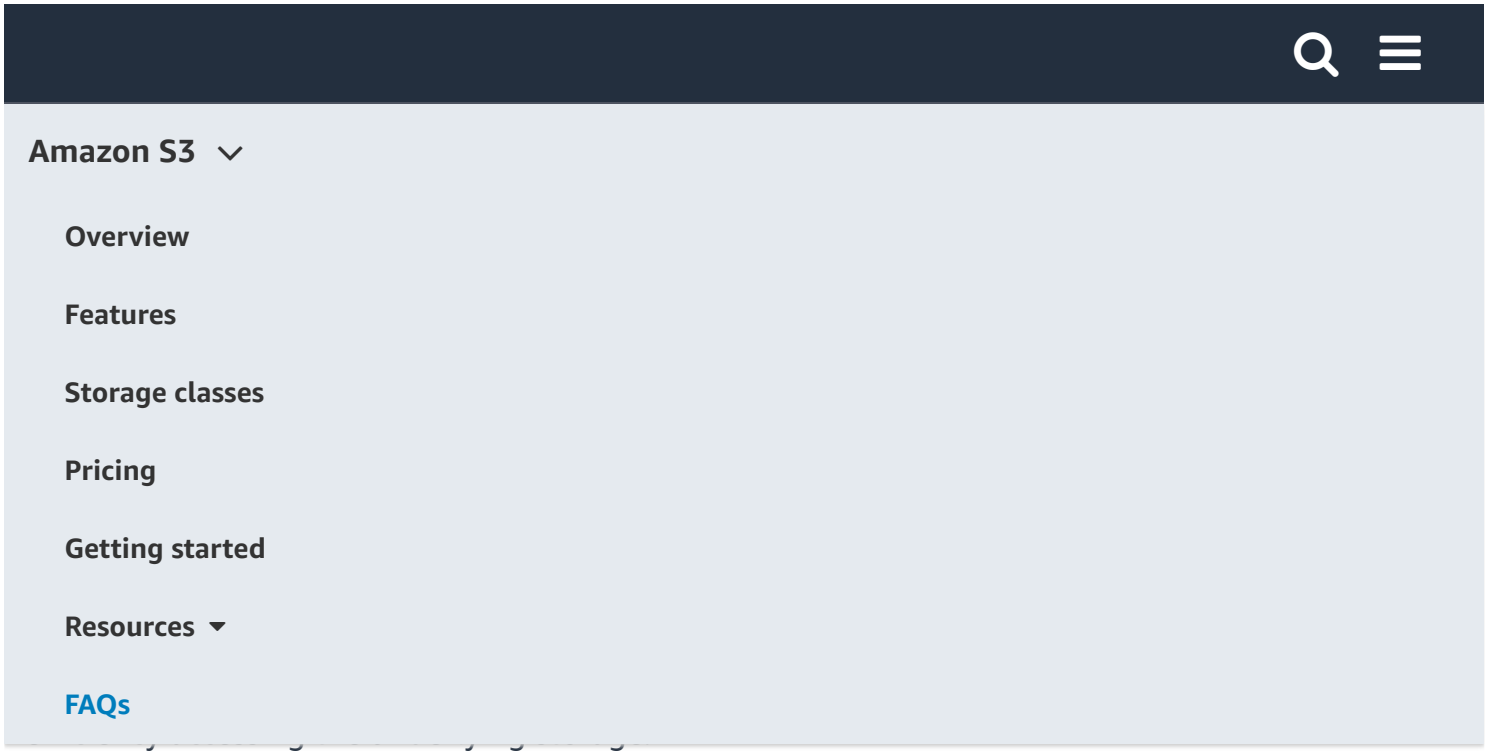
pricing page for information about S3 Glacier Deep Archive pricing.

Show less

Q: How does S3 Glacier Deep Archive integrate with other AWS Services?

Deep Archive is integrated with Amazon S3 features including S3 Storage Class Analysis, S3 Object Tagging, S3 Lifecycle policies, Composable objects, S3 Object Lock, and S3 Cross-Region Replication. With S3 storage management features, you can use a single Amazon S3 bucket to store a mixture of S3 Glacier Deep Archive, S3 Standard, S3 Standard-IA, S3 One Zone-IA, and S3 Glacier data. This allows storage administrators to make decisions based on the nature of the data and data access patterns. Customers can use Amazon S3 Lifecycle policies to automatically migrate data to lower-cost storage classes as the data ages, or S3 Cross-Region Replication policies to replicate data to another region.

AWS Storage Gateway service integrates Tape Gateway with S3 Glacier Deep Archive storage class, allowing you to store virtual tapes in the lowest-cost Amazon S3 storage class, reducing the monthly cost to store your long-term data in the cloud by 75%. With this feature, Tape Gateway supports archiving your new virtual tapes directly to S3 Glacier and S3 Glacier Deep Archive, helping you meet your backup, archive, and recovery requirements. Tape Gateway helps you move tape-based backups to AWS without making any changes to your existing backup workflows. Tape Gateway supports most of the leading backup applications such as Veritas, Veeam, Commvault,



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Query in Place

Q: What is "Query in Place" functionality?

Amazon S3 allows customers to run sophisticated queries against data stored without the need to move data into a separate analytics platform. The ability to query this data in place on Amazon S3 can significantly increase performance and reduce cost for analytics solutions leveraging S3 as a data lake. S3 offers multiple query in place options, including S3 Select, Amazon Athena, and Amazon Redshift Spectrum, allowing you to choose one that best fits your use case. You can even use Amazon S3 Select with AWS Lambda to build serverless apps that can take advantage of the in-place processing capabilities provided by S3 Select.

Show less

Q: What is S3 Select?

S3 Select is an Amazon S3 feature that makes it easy to retrieve specific data from the contents of an object using simple SQL expressions without having to retrieve the entire object. You can use S3

Q: Why should I use S3 Select?

S3 Select provides a new way to retrieve specific data using SQL statements from the contents of an object stored in Amazon S3 without having to retrieve the entire object. S3 Select simplifies and improves the performance of scanning and filtering the contents of objects into a smaller, targeted dataset by up to 400%. With S3 Select, you can also perform operational investigations on log files in Amazon S3 without the need to operate or manage a compute cluster.

Show less

Q: What is Amazon Athena?

Amazon Athena is an interactive query service that makes it easy to analyze data in Amazon S3 using standard SQL queries. Athena is serverless, so there is no infrastructure to setup or manage, and you can start analyzing data immediately. You don't even need to load your data into Athena, it works directly with data stored in any S3 storage class. To get started, just log into the Athena Management Console, define your schema, and start querying. Amazon Athena uses Presto with full standard SQL support and works with a variety of standard data formats, including CSV, JSON, ORC, Apache Parquet and Avro. While Athena is ideal for quick, ad-hoc querying and integrates with Amazon QuickSight for easy visualization, it can also handle complex analysis, including large joins, window functions, and arrays.

Show less

you the freedom to store your data where you want, in the format you want, and have it available for processing when you need it.

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Event Notification

Q: What are Amazon S3 Event Notifications?

Amazon S3 event notifications can be sent in response to actions in Amazon S3 like PUTs, POSTs, COPYs, or DELETEs. Notification messages can be sent through either Amazon SNS, Amazon SQS, or directly to AWS Lambda.

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Q: What can I do with Amazon S3 event notifications?

Amazon S3 event notifications enable you to run workflows, send alerts, or perform other actions in response to changes in your objects stored in S3. You can use S3 event notifications to set up triggers to perform actions including transcoding media files when they are uploaded, processing data files when they become available, and synchronizing S3 objects with other data stores. You

For a detailed description of how to configure event notifications, please refer to the Configuring Amazon S3 event notifications topic in the Amazon S3 Developer Guide. You can learn more about AWS messaging services in the Amazon SNS Documentation and the Amazon SQS Documentation.

Show less

Q: What does it cost to use Amazon S3 event notifications?

There are no additional charges for using Amazon S3 for event notifications. You pay only for use of Amazon SNS or Amazon SQS to deliver event notifications, or for the cost of running an AWS Lambda function. Visit the Amazon SNS, Amazon SQS, or AWS Lambda pricing pages to view the pricing details for these services.

Show less

Amazon S3 Transfer Acceleration

Q: What is S3 Transfer Acceleration? >>

Q: How do I get started with S3 Transfer Acceleration?

S3 Transfer Acceleration helps you fully utilize your bandwidth, minimize the effect of distance on throughput, and is designed to ensure consistently fast data transfer to Amazon S3 regardless of your client's location. The amount of acceleration primarily depends on your available bandwidth, the distance between the source and destination, and packet loss rates on the network path. Generally, you will see more acceleration when the source is farther from the destination, when there is more available bandwidth, and/or when the object size is bigger.

One customer measured a 50% reduction in their average time to ingest 300 MB files from a global user base spread across the US, Europe, and parts of Asia to a bucket in the Asia Pacific (Sydney) region. Another customer observed cases where performance improved in excess of 500% for users in South East Asia and Australia uploading 250 MB files (in parts of 50MB) to an S3 bucket in the US East (N. Virginia) region.

Try the speed comparison tool to get a preview of the performance benefit from your location!

Show less

Q: Who should use S3 Transfer Acceleration?

S3 Transfer Acceleration is designed to optimize transfer speeds from across the world into S3 buckets. If you are uploading to a centralized bucket from geographically dispersed locations, or if you regularly transfer GBs or TBs of data across continents, you may save hours or days of data transfer time with S3 Transfer Acceleration.

Q: Can S3 Transfer Acceleration complement the AWS Storage Gateway or a 3rd party gateway? >>

Q: Can S3 Transfer Acceleration complement 3rd party integrated software? >>

Q: Is S3 Transfer Acceleration HIPAA eligible? >>

Storage Management

S3 Object Tagging

Q: What are S3 object tags?

S3 object tags are key-value pairs applied to S3 objects which can be created, updated or deleted at any time during the lifetime of the object. With these, you'll have the ability to create Identity and Access Management (IAM) policies, setup S3 Lifecycle policies, and customize storage metrics. These object-level tags can then manage transitions between storage classes and expire objects in the background.

Show less

or business unit, which could be used in conjunction with S3 Lifecycle policies to manage transitions to other storage classes (S3 Standard-IA, S3 One Zone-IA, and S3 Glacier) or with S3 Cross-Region Replication to selectively replicate data between AWS Regions.

Show less

Q: How can I update the object tags on my objects?

Object tags can be changed at any time during the lifetime of your S3 object, you can use either the AWS Management Console, the REST API, the AWS CLI, or the AWS SDKs to change your object tags. Note that all changes to tags outside of the AWS Management Console are made to the full tag set. If you have five tags attached to a particular object and want to add a sixth, you need to include the original five tags in that request.

Show less

Q: Will my object tags be replicated if I use Cross-Region Replication?

Object tags can be replicated across AWS Regions using Cross-Region Replication. For customers with Cross-Region Replication already enabled, new permissions are required in order for tags to replicate. For more information about setting up Cross-Region Replication, please visit How to Set Up Cross-Region Replication in the Amazon S3 Developer Guide.

Show less

to monitor an entire bucket, prefix, or object tag. Once an infrequent access pattern is observed, you can easily create a new S3 Lifecycle age policy based on the results. Storage Class Analysis also provides daily visualizations of your storage usage on the AWS Management Console that you can export to an S3 bucket to analyze using business intelligence tools of your choice such as Amazon QuickSight.

Show less

Q: How do I get started with Storage Class Analysis?

You can use the AWS Management Console or the S3 PUT Bucket Analytics API to configure a Storage Class Analysis policy to identify infrequently accessed storage that can be transitioned to the S3 Standard-IA or S3 One Zone-IA storage class or archived to the S3 Glacier storage class. You can navigate to the “Management” tab in the S3 Console to manage Storage Class Analysis, S3 Inventory, and S3 CloudWatch metrics.

Show less

Q: How am I charged for using Storage Class Analysis?

Please see the Amazon S3 pricing page for general information about Storage Class Analysis pricing.

Show less

verify encryption and replication status of your objects to meet business, compliance, and regulatory needs.

Show less

Q: How do I get started with S3 Inventory?

You can use the AWS Management Console or the PUT Bucket Inventory API to configure a daily or weekly inventory report for all the objects within your S3 bucket or a subset of the objects under a shared prefix. As part of the configuration, you can specify a destination S3 bucket for your S3 Inventory report, the output file format (CSV, ORC, or Parquet), and specific object metadata necessary for your business application, such as object name, size, last modified date, storage class, version ID, delete marker, noncurrent version flag, multipart upload flag, replication status, or encryption status.

Show less

Q: Can S3 Inventory report files be encrypted?

Yes, you can configure encryption of all files written by S3 inventory to be encrypted by SSE-S3 or SSE-KMS. For more information, refer to the user guide.

Show less

S3 Batch Operations

Q: What is S3 Batch Operations?

S3 Batch Operations is a feature that you can use to automate the execution, management, and auditing of a specific S3 request or Lambda function across many objects stored in Amazon S3. You can use S3 Batch Operations to automate replacing tag sets on S3 objects, updating access control lists (ACL) for S3 objects, copying storage between buckets, initiating a restore from Glacier to S3, or performing custom operations with Lambda functions. S3 Batch Operations can be used from the S3 console, or through the AWS CLI and SDK.

Show less

Q: Why should I use S3 Batch Operations?

You should use S3 Batch Operations if you want to automate the execution of a single operation (like copying an object, or executing an AWS Lambda function) across many objects. With S3 Batch Operations, you can, with a few clicks in the S3 console or a single API request, make a change to billions of objects without having to write custom application code or run compute clusters for storage management applications. Not only does S3 Batch Operations administer your storage operation across many objects, S3 Batch Operations manages retries, displays progress, delivers notifications, provides a completion report, and sends events to AWS CloudTrail for all operations

grantees, and restoration duration. To further customize your storage actions, you can write your own Lambda function and invoke that code through S3 Batch Operations.

Once you create your S3 Batch Operations job, S3 Batch Operations will process your list of objects and send the job to the "awaiting confirmation" state if required. After you confirm the job details, S3 Batch Operations will begin executing the operation you specified. You can view your job's progress programmatically or through the S3 console, receive notifications on completion, and review a completion report that itemizes the changes made to your storage.

If you are interested in learning more about S3 Batch Operations watch the tutorials videos and visit the documentation.

Show less

S3 Object Lock

Q: What is Amazon S3 Object Lock?

Amazon S3 Object Lock is a new Amazon S3 feature that blocks object version deletion during a customer-defined retention period so that you can enforce retention policies as an added layer of data protection or for regulatory compliance. You can migrate workloads from existing write-once-read-many (WORM) systems into Amazon S3, and configure S3 Object Lock at the object- and bucket-levels to prevent object version deletions prior to pre-defined Retain Until Dates or Legal

Q: How does Amazon S3 Object Lock work?

Amazon S3 Object Lock blocks deletion of an object for the duration of a specified retention period. Coupled with S3 Versioning, which protects objects from being overwritten, you're able to ensure that objects remain immutable for as long as WORM protection is applied. You can apply WORM protection by either assigning a Retain Until Date or a Legal Hold to an object using the AWS SDK, CLI, REST API, or the S3 Management Console. You can apply retention settings within a PUT request, or apply them to an existing object after it has been created.

The Retain Until Date defines the length of time for which an object will remain immutable. Once a Retain Until Date has been assigned to an object, that object cannot be modified or deleted until the Retain Until Date has passed. If a user attempts to delete an object before its Retain Until Date has passed, the operation will be denied.

S3 Object Lock can be configured in one of two Modes. When deployed in Governance Mode, AWS accounts with specific IAM permissions are able to remove WORM protection from an object. If you require stronger immutability in order to comply with regulations, you can use Compliance Mode. In Compliance Mode, WORM protection cannot be removed by any user, including the root account.

Alternatively, you can make an object immutable by applying a Legal Hold to that object. A Legal Hold places indefinite S3 Object Lock protection on an object, which will remain until it is explicitly removed. In order to place and remove Legal Holds, your AWS account must have write permission for the PutObjectLegalHold action. Legal Hold can be applied to any object in an S3 Object Lock enabled bucket, whether or not that object is currently WORM-protected by a retention period.

Q: What AWS documentation supports the SEC 17a-4(f)(2)(i) and CFTC 1.31(c) requirement for notifying my regulator?

Provide notification to your regulator or "Designated Examining Authority (DEA)" of your choice to use Amazon S3 for electronic storage along with a copy of the Cohasset Assessment. For the purposes of these requirements, AWS is not a designated third party (D3P). Be sure to select a D3P and include this information in your notification to your DEA.

Show less

S3 CloudWatch Metrics

Q: How do I get started with S3 CloudWatch Metrics?

You can use the AWS Management Console to enable the generation of 1-minute CloudWatch request metrics for your S3 bucket or configure filters for the metrics using a prefix or object tag. Alternatively, you can call the S3 PUT Bucket Metrics API to enable and configure publication of S3 storage metrics. CloudWatch Request Metrics will be available in CloudWatch within 15 minutes after they are enabled. CloudWatch Storage Metrics are enabled by default for all buckets, and reported once per day.

Show less

Q: Can I align S3 CloudWatch request metrics to my applications or business organizations?

Q: How am I charged for using S3 CloudWatch Metrics?

CloudWatch storage metrics are provided free. Cloudwatch request metrics are priced as custom metrics for Amazon CloudWatch. Please see the Amazon CloudWatch pricing page for general information about S3 CloudWatch metrics pricing.

Show less

S3 Lifecycle Management

Q: What is S3 Lifecycle management?

S3 Lifecycle management provides the ability to define the lifecycle of your object with a predefined policy and reduce your cost of storage. You can set a lifecycle transition policy to automatically migrate objects stored in the S3 Standard storage class to the S3 Standard-IA, S3 One Zone-IA, and/or S3 Glacier storage classes based on the age of the data. You can also set lifecycle expiration policies to automatically remove objects based on the age of the object. You can set a policy for multipart upload expiration, which expires incomplete multipart uploads based on the age of the upload.

Show less

Q: How do I set up an S3 Lifecycle management policy?

Q: What can I do with Lifecycle management policies?

As data matures, it can become less critical, less valuable, and/or subject to compliance requirements. Amazon S3 includes an extensive library of policies that help you automate data migration processes between storage classes. For example, you can set infrequently accessed objects to move into lower cost storage classes (like S3 Standard-IA or S3 One Zone-IA) after a period of time. After another period, those objects can be moved into Amazon S3 Glacier for archive and compliance. If policy allows, you can also specify a lifecycle policy for object deletion. These rules can invisibly lower storage costs and simplify management efforts. These policies also include good stewardship practices to remove objects and attributes that are no longer needed to manage cost and optimize performance.

Show less

Q: How can I use Amazon S3 Lifecycle management to help lower my Amazon S3 storage costs?

With Amazon S3 Lifecycle policies, you can configure your objects to be migrated to from the S3 Standard storage class to S3 Standard-IA or S3 One Zone-IA and/or archived to S3 Glacier. You can also specify an S3 Lifecycle policy to delete objects after a specific period of time. You can use this policy-driven automation to quickly and easily reduce storage costs as well as save time. In each rule you can specify a prefix, a time period, a transition to S3 Standard-IA, S3 One Zone-IA, or S3 Glacier, and/or an expiration. For example, you could create a rule that archives into S3 Glacier all objects with the common prefix “logs/” 30 days from creation and expires these objects after 365 days from creation. You can also create a separate rule that only expires all objects with the prefix

number of days. You can define the expiration rules for a set of objects in your bucket through the Lifecycle configuration policy that you apply to the bucket.

Learn more about S3 Lifecycle expiration policies »

Show less

Q: Why would I use an S3 Lifecycle policy to expire incomplete multipart uploads?

The S3 Lifecycle policy that expires incomplete multipart uploads allows you to save on costs by limiting the time non-completed multipart uploads are stored. For example, if your application uploads several multipart object parts, but never commits them, you will still be charged for that storage. This policy can lower your S3 storage bill by automatically removing incomplete multipart uploads and the associated storage after a predefined number of days.

Learn more about using S3 Lifecycle to expire incomplete mulitpart uploads »

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Cross-Region Replication

Q: What is Amazon S3 Cross-Region Replication (CRR)? >>

bucket.

Now, you can establish S3 Cross-Region Replication rules to make direct copies of data into the S3 Glacier storage class in a different region for backup or other purposes, without having to manage data lifecycle policies.

Show less

Q: Can I use CRR with objects encrypted by AWS Key Management Service (KMS)?

Yes, you can replicate KMS-encrypted objects by providing a destination KMS key in your replication configuration.

Learn more about replicating KMS-encrypted objects »

Show less

Q: Are objects securely transferred and encrypted throughout replication process?

Yes, objects remain encrypted throughout the CRR process. The encrypted objects are transmitted securely via SSL from the source region to the destination region.

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pricing page.

If the source object is uploaded using the multipart upload feature, then it is replicated using the same number of parts and part size. For example, a 100 GB object uploaded using the multipart upload feature (800 parts of 128 MB each) will incur request cost associated with 802 requests (800 Upload Part requests + 1 Initiate Multipart Upload request + 1 Complete Multipart Upload request) when replicated. You will incur a request charge of $0.00401 (802 requests x $0.005 per 1,000 requests) and a charge of $2.00 ($0.020 per GB transferred x 100 GB) for inter-region data transfer. After replication, the 100 GB will incur storage charges based on the destination region.

Show less

Amazon S3 and IPv6

Q: What is IPv6?

Every server and device connected to the Internet must have a unique address. Internet Protocol Version 4 (IPv4) was the original 32-bit addressing scheme. However, the continued growth of the Internet means that all available IPv4 addresses will be utilized over time. Internet Protocol Version 6 (IPv6) is the new addressing mechanism designed to overcome the global address limitation on IPv4.

You can get started by pointing your application to Amazon S3's new "dual-stack" endpoint, which supports access over both IPv4 and IPv6. In most cases, no further configuration is required for access over IPv6, because most network clients prefer IPv6 addresses by default.

Show less

Q: Should I expect a change in Amazon S3 performance when using IPv6?

No, you will see the same performance when using either IPv4 or IPv6 with Amazon S3.

Show less

Q: What can I do if my clients are impacted by policy, network, or other restrictions in using IPv6 for Amazon S3?

Applications that are impacted by using IPv6 can switch back to the standard IPv4-only endpoints at any time.

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Q: Can I use IPv6 with all Amazon S3 features?

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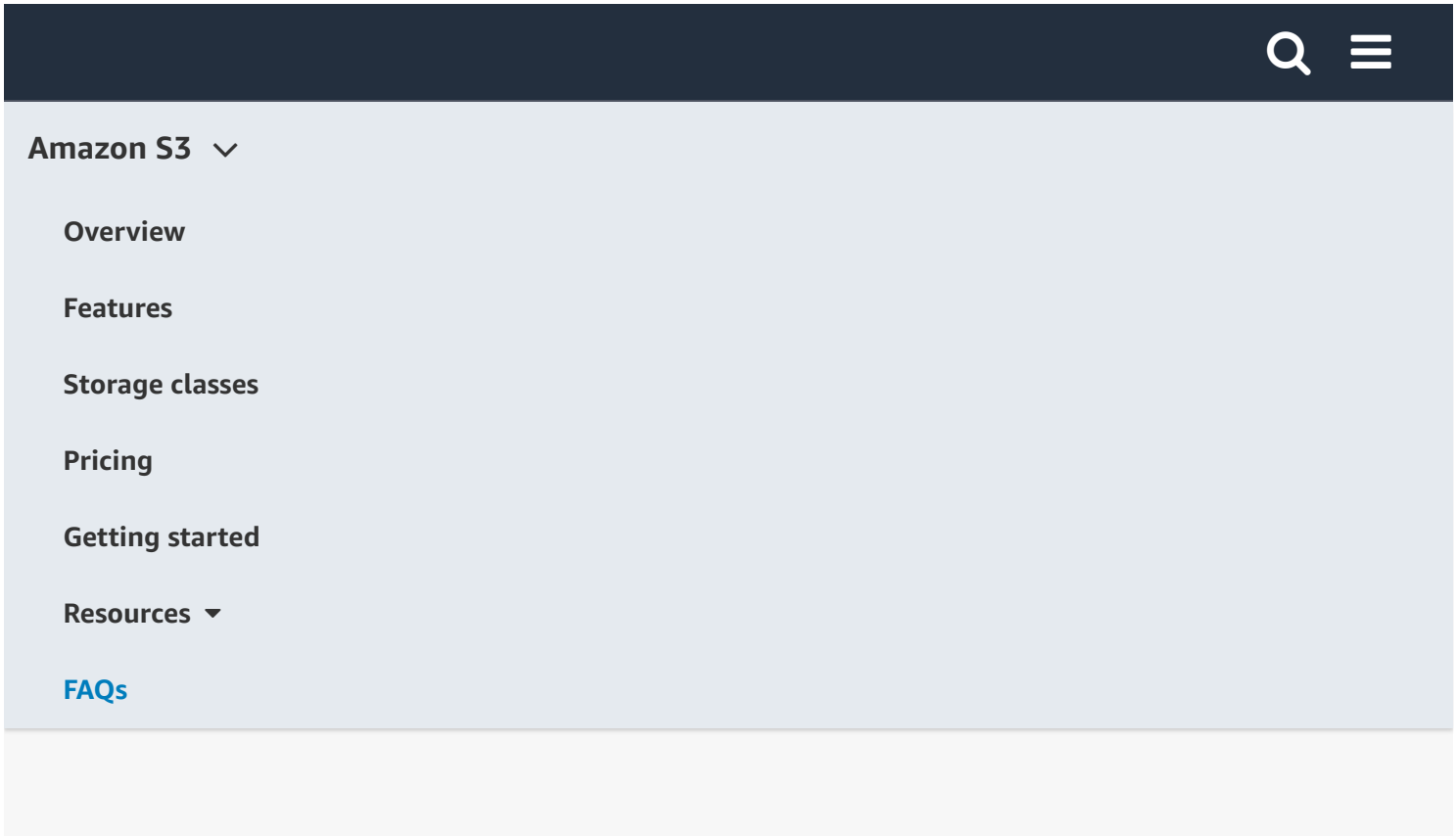
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