

Use Intelligent Tiering With an Amazon S3 Storage Node

Each object in Amazon S3 has a storage class associated with it. Amazon S3 offers a range of storage classes for the objects that you store. You choose a class depending on your use case scenario and performance access requirements.

The STANDARD storage class is the default storage class if you don't specify a storage class when you upload an object to AWS. However, Amazon also offer a storage class that automatically optimizes frequently and infrequently accessed objects, the INTELLIGENT_TIERING storage class.

The INTELLIGENT_TIERING storage class is designed to optimize storage costs by automatically moving data to the most cost-effective storage access tier, without performance impact or operational overhead.

The INTELLIGENT_TIERING storage class is suitable for objects larger than 128 KB that you plan to store for at least 30 days. The storage class stores objects in two access tiers: one tier that is optimized for frequent access and another lower-cost tier that is optimized for infrequently accessed data. Amazon S3 monitors access patterns of the objects in the storage class and moves data on a granular object level that has not been accessed for 30 consecutive days to the infrequent access tier.

With intelligent tiering, you are charged a monthly monitoring and automation fee per object instead of retrieval fees. If an object in the infrequent access tier is accessed, it is automatically moved back to the frequent access tier, but no fees are applied when objects are moved between access tiers within the INTELLIGENT_TIERING storage class.

The bigger the block size, the larger the savings. CTERA recommends using the INTELLIGENT_TIERING storage class when the block size is set to 1MB or larger. If the block size is less than 1MB, contact CTERA support to see whether there is a saving.

Step-by-step guide

To transition storage to intelligent tiering storage:

1. From your Amazon Web Services account, sign in to the AWS Management Console and select **Services**.
2. Under **Storage**, select **S3**.
3. Click the CTERA Portal bucket from the S3 buckets list and then select the **Management** tab.
The management details for the bucket are displayed.
4. Click **Add lifecycle rule**.
The **Lifecycle rule** wizard is displayed.
5. Enter a name for the rule and in the filter text box enter *blocks* and the press **Enter**.
6. Click **Next**.
The **Lifecycle rule** wizard **Transitions** screen is displayed.
7. Check **Current version**.
The **Transitions** screen is changed to include the ability to add transitions.
8. Click **Add transition** and from the **Object creation** drop-down select **Transition to Intelligent-Tiering after**.
9. Specify 7 days to wait until the transition is performed.
10. Click **Next**.
The Lifecycle rule wizard **Expirations** screen is displayed.
11. Leave the defaults, everything unchecked, and click **Next**.
The **Lifecycle rule** wizard **Review** screen is displayed.

12. Click **Save**.

The management details for the bucket are displayed showing the added lifecycle rule.

Use management metrics to validate the storage transition.

Also see [AWS Intelligent Tiering Storage.pdf](#)