Alibaba Cloud

Apsara File Storage NAS Pricing

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Document conventions

Style	Description	Example
A Danger	A danger notice indicates a situation that will cause major system changes, faults, physical injuries, and other adverse results.	Danger: Resetting will result in the loss of user configuration data.
O Warning	A warning notice indicates a situation that may cause major system changes, faults, physical injuries, and other adverse results.	Warning: Restarting will cause business interruption. About 10 minutes are required to restart an instance.
☐) Notice	A caution notice indicates warning information, supplementary instructions, and other content that the user must understand.	Notice: If the weight is set to 0, the server no longer receives new requests.
⑦ Note	A note indicates supplemental instructions, best practices, tips, and other content.	Onte: You can use Ctrl + A to select all files.
>	Closing angle brackets are used to indicate a multi-level menu cascade.	Click Settings> Network> Set network type.
Bold	Bold formatting is used for buttons , menus, page names, and other UI elements.	Click OK.
Courier font	Courier font is used for commands	Run the cd /d C:/window command to enter the Windows system folder.
Italic	Italic formatting is used for parameters and variables.	bae log listinstanceid Instance_ID
[] or [a b]	This format is used for an optional value, where only one item can be selected.	ipconfig [-all -t]
{} or {a b}	This format is used for a required value, where only one item can be selected.	switch {active stand}

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1.Billing of General-purpose NAS file systems

This topic describes the billable items, billing cycle, and billing methods of General-purpose NAS file systems. This topic also compares the billing methods and provides several billing examples.

Billable items

Billable item	Description
	The maximum used storage space of the file system. Fees are calculated based on the maximum used storage space per hour.
	 The used storage space indicates the total size of all files in a file system. The size of directories is not included. The basic storage unit is 4 KiB. If the size of a file is less than 4 KiB, the billed storage space of the file is rounded up to 4 KiB. If the size of a file is larger than 4 KiB, the billed storage space is rounded up to the nearest multiple of 4 KiB. For example, if the size of a file is 2 KiB, the size of the file is counted as 4 KiB. If the size of a file is 6KiB, the size of the file is counted as 8 KiB.
Storage capacity	• File holes occupy storage space in NAS. You are charged for the file holes in your NAS file system. A file hole consists of zeros that are not written to a file. You can create a file hole by using the truncate , lseek , or fallocate command.
	• After you enable the recycle bin feature, you are charged for the storage usage of the temporary files in the recycle bin based on the pricing of the original storage type during the retention period. For example, if you delete a file from a Capacity NAS file system, you are charged for the file based on the unit price of storage space in Capacity NAS file systems. Likewise, if you delete a file from an IA storage medium, you are charged for the file based on the unit price of storage space in the IA storage medium. For more information, see Enable the recycle bin feature.

Billing cycle

The fees that are generated within an hour are deducted from your account balance in the next hour. For example, you are billed at 09:30:00 for the fees that are generated from 08:00:00 to 09:00:00 of the same day.

Note The bill that you receive at 09:30:00 may include only the fees that are generated from 07:00:00 to 08:00:00 because of system latency.

Comparison of billing methods

By default, NAS file systems are billed based on the pay-as-you-go billing method. You can also purchase resource plans and storage capacity units (SCUs) to offset fees. The following table compares the operations and billable items that are supported by each billing method. A check sign (\checkmark) indicates that the operation is supported by the billing method. A cross sign (x) indicates that the operation is not supported by the billing method. A hyphen (-) indicates that the operation is not applicable to the billing method.

Note If you have resource plans, SCUs, and storage plans within your Alibaba Cloud account, storage usage fees are offset based on the following sequence: storage plans, resource plans, and SCUs. Then, you are charged based on the pay-as-you-go billing method.

Туре	Billable item	Purcha se	Offset the storag e usage fees of Genera l- purpos e NAS file system s of differe nt storag e types	Offset the storag e usage fees of multipl e NAS file system s	Offset only the storag e usage fees of NAS file system s	Renew al	Upgra de	Purcha se multipl e resour ce plans
Pay- as- you-go	All billable items of NAS file systems	-	-	-	_	-	_	-
Resour ce plan	 Storage usage of General- purpose NAS file systems Storage usage of IA storage media 	1	J	J.	J.	1		J
Storag e plan	 Storage usage of General- purpose NAS file systems Storage usage of IA storage media 	×	×	×	J	1	1	x
Storag e capacit y units (SCUs)	Storage usage of General-purpose NAS file systems	1	¥	J	×	×	×	1

Billing method

• Pay-as-you-go

After you create a NAS file system, you are billed based on the pay-as-you-go billing method by default.

The storage usage fee is calculated by using the following formula: Storage usage fee = Maximum usage of a NAS file system per hour × Unit price per hour

⑦ Note

- You can log on to the NAS console to view the storage usage in the Basic Information section. The storage usage is updated once per hour. In some cases, the storage usage that is displayed in the console at the current local time is the storage usage in the previous hour because of latency.
- General-purpose NAS file systems are divided into two types: Capacity NAS file system and Performance NAS file system. The two types have different unit prices for storage usage. For NAS file systems, the unit of storage usage fee is USD/GiB/month.When you calculate the storage usage fee, you must convert the unit of measurement to USD/GiB/hour. For more information, see Apsara File Storage NAS pricing.

• Resource plans (recommended)

A resource plan is a type of subscription billing method. You can purchase multiple resource plans and use the resource plans to offset the storage usage fees of multiple file systems. Resource plans are applied to offset the fees based on the following sequence: Performance NAS file systems, Capacity NAS file systems, and IA storage media.

• Purchase method

For more information about how to purchase a resource plan, see Manage resource plans.

• Offset rules

The following table describes the rules that are applied when you use resource plans to offset the storage usage fees of different storage types of NAS file systems in the Chinese mainland. To view the relevant information about the offset rules that are applied in other regions, you can use the calculator.

Specificatio n	Conversion coefficient	Description
Capacity NAS file system	1	You can use 1 GiB of base capacity in your General-purpose NAS resource plan to offset the fee for 1 GiB of storage usage from a Capacity NAS file system.
Performanc e NAS file system	5.47	You can use 5.47 GiB of base capacity in your General-purpose NAS resource plan to offset the fee for 1 GiB of storage usage from a Performance NAS file system.
IA storage media	0.37	You can use 0.37 GiB of base capacity in your General-purpose resource plan to offset the fee for 1 GiB of storage usage from an IA storage medium.

You can use the calculator that is provided by Alibaba Cloud to calculate the fees that are offset by the resource plans within your account in the current region. This way, you can select appropriate resource plans based on the current storage usage to reduce your costs.

• Renewal and upgrade

You can renew and upgrade a resource plan. For more information, see Manage resource plans.

• Storage capacity units (SCUs)

An SCU is a type of subscription billing method. You can purchase multiple SCUs and use them to offset the storage usage fees of multiple Alibaba Cloud storage services. SCUs are more flexible and cost-effective than storage plans that are dedicated to specific storage services.

• Purchase method

For more information about how to purchase SCUs, see Create an SCU.

• Offset rules

You can use SCUs to offset the storage usage fees of NAS, Object Storage Service (OSS), and Elastic Compute Service (ECS) resources. The following table describes the rules that are applied when you use SCUs to offset the storage usage fees of different storage classes of NAS file system in the Chinese mainland. For more information about the rules that are applied in other Alibaba Cloud storage services and regions, visit the Pricing page.

File system type	Offset factor	Description
Capacity NAS file system	0.25	You can use 0.25 GiB of capacity in your SCU to offset the fee for 1 GiB of storage usage from a Capacity NAS file system.
Performanc e NAS file system	0.889	You can use 0.889 GiB of capacity in your SCU to offset the fee for 1 GiB of storage usage from a Performance NAS file system.

• Examples

Mr. Chen purchased a General-purpose NAS resource plan of 500 GiB and an SCU of 40 GiB in the China (Beijing) region in January 2021. In February 2021 in the China (Beijing) region, the storage usage of the Capacity NAS file system is 600 GiB and the storage usage of the Performance NAS file system is 200 GiB. The following table shows the values that are obtained after NAS calculates the monthly usage fee of the file systems based on the resource plan and the SCU.

File system type	Offset by resource plans	Offset by SCUs
Capacity NAS file system	You can use 500 GiB of capacity in your resource plan to offset the fee for 500 GiB of storage usage from the Capacity NAS file system.	You can use 25 GiB of capacity in your SCU to offset the fee for 100 GiB of storage usage from the Capacity NAS file system.
Performance NAS file system	None	You can use 15 GiB of capacity in your SCU to offset 16.87 GiB of storage usage from the Performance NAS file system.

• Storage plans

A storage plan is a type of subscription billing method. You can use a storage plan to offset only the storage usage fees of a file system to which the storage plan is attached.

Notice Alibaba Cloud supports resource plans for Apsara File Storage NAS. You can no longer purchase storage plans. However, you can renew or upgrade existing storage plans. Compared with a storage plan, a resource plan does not need to be bound to a file system. You can purchase multiple resource plans to offset the storage usage fees of multiple file systems.

- Offset rules
 - After you purchase a storage plan, NAS offsets fees from the storage plan based on the storage usage of your file system.
 - You can attach only one storage plan to a General-purpose NAS file system. When you delete the General-purpose NAS file system, the storage plan is automatically detached. You can attach the detached storage plan to another file system of the same type in the same region to offset storage usage fees.
- Renewal and upgrade

You can renew and upgrade a storage plan. For more information, see Manage storage plans.

Billing examples

Example 1: Mr. Zhang has created a Performance NAS file system named File System A in the China (Beijing) region. The storage usage of File System A in January 2021 is 100 GiB per hour. In the storage usage, 10 GiB of data is stored in a General-purpose NAS file system, and 90 GiB of data is stored in an IA storage medium. The read traffic of the IA storage medium is 1 GiB and the write traffic of the IA storage medium is 2 GiB within the month. The following table lists the fees that are incurred by File System A within the month based on storage plans and the pay-as-you-go billing method.

Billing method	Billing
	 Storage usage fee of General-purpose NAS file system = 10 GiB × USD 0.3/GiB/month = USD 3
	 Storage usage fee of the IA storage medium = 90 GiB × USD 0.02322/GiB/month = USD 2.0898
Pay-as-you-go	• Read and write traffic fees of the IA storage medium
	• Read traffic fee = 1 GiB × USD 0.00929/GiB = USD 0.00929
	• Write traffic fee = 2 GiB × USD 0.00929/GiB = USD 0.01858
	Total fee = USD 3 + USD 2.0898 + USD 0.00929 + USD 0.01858 = USD 5.11767

Billing method	Billing
Resource plan for General-purpose NAS file systems (100 GiB, one month)	The 100 GiB of storage capacity in the resource plan is used to first offset 10 GiB of storage usage from the Performance NAS file system. The remaining storage capacity of the resource plan is calculated by using the following equation: 100 GiB - 10 GiB × 5.47 = 45.3 GiB.
	The 45.3 GB of storage capacity is then used to offset 90 GiB of storage usage from the IA storage medium. The remaining storage capacity of the resource plan is calculated by using the following equation: $45.3 \text{ GiB} - 90 \text{ GiB} \times 0.37 = 12 \text{ GiB}$.
	Only the pay-as-you-go billing method can be used to calculate the read and write traffic fees of IA storage media.
one monthy	• Read traffic fee = 1 GiB × USD 0.00929/GiB = USD 0.00929
	• Write traffic fee = 2 GiB × USD 0.00929/GiB = USD 0.01858
	Total fee = USD 4.57 + USD 0.00929 + USD 0.01858 = USD 4.59787
	USD 4.57 is the fee of a resource plan (100 GiB, one month) for a General- purpose NAS file system in the China (Beijing) region.

Example 2: Mr. Zhang has created a Performance NAS file system named File System A in the China (Beijing) region. The storage usage of File System A in January 2021 is 210 GiB per hour. In the storage usage, 10 GiB of data is stored in a General-purpose NAS file system and 200 GiB of data is stored in an IA storage medium. The read traffic of the IA storage medium is 1 GiB, and the write traffic of the IA storage medium is 2 GiB within the month. Mr. Zhang also has a Capacity NAS file system named File System B. The storage usage of File System B in January 2021 is 90 GiB per hour. The following table lists the fees that are incurred by File System A and File System B within the month based on storage plans and the pay-as-you-go billing method.

Billing method	Billing
Pay-as-you-go	 Storage usage fees of the General-purpose NAS file system Storage usage fee of the Performance NAS file system = 10 GiB × USD 0.3/GiB/month = USD 3 Storage usage fee of the Capacity NAS file system = 90 GiB × USD 0.06/GiB/month = USD 5.4. Storage usage fee of the IA storage medium = 200 GiB × USD 0.02322/GiB/month = USD 4.644 Read and write traffic fees Read traffic fee = 1 GiB × USD 0.00929/GiB = USD 0.00929 Write traffic fee = 2 GiB × USD 0.00929/GiB = USD 0.01858 Total fee = USD 3 + USD 5.4 + USD 4.644 + USD 0.00929 + USD 0.01858 = USD 13.07187

Billing method	Billing
Two resource plans for	The 100 GiB of storage capacity in the resource plans is used to first offset 10 GiB of storage usage from the Performance NAS file system. The remaining storage capacity of the resource plan is calculated by using the following equation: 200 GiB - 10 GiB \times 5.47 = 145.3 GiB. The 145.3 GiB of storage capacity is then used to offset 90 GiB of storage usage from the IA storage medium. The remaining storage capacity of the resource plan is calculated by using the following the following equation: 145.3 GiB - 90 GiB \times 1 = 55.3 GiB.
	The 55.3 GiB of storage capacity is then used to offset 149.5 GiB of storage usage from the IA storage medium (55.3 GiB/0.37 \approx 149.5 GiB). The excess storage usage of the IA storage medium is 50.5 GiB (200 GiB - 149.5 GiB = 50.5 GiB) is calculated based on the pay-as-you-go billing method by using the following equation: 50.5 GiB × USD 0.02322 = USD 1.17261.
General-purpose NAS file systems (100 GiB, one month)	Only the pay-as-you-go billing method can be used to calculate the read and write traffic fees of IA storage media.
,	• Read traffic fee = 1 GiB × USD 0.00929/GiB = USD 0.00929
	• Write traffic fee = 2 GiB × USD 0.00929/GiB = USD 0.01858
	Total fee = USD 4.57 × 2 + USD 1.17261 + USD 0.00929 + USD 0.01858 = USD 10.34048
	USD 4.57 is the fee of a resource plan (100 GiB, one month) for a General- purpose NAS file system in the China (Beijing) region.

Example 3: Mr. Zhang has created a Capacity NAS file system named File System A in the China (Beijing) region. The storage usage of File System A in January 2021 is 1000 GiB per hour. In the storage usage, 200 GiB of data is stored in a General-purpose NAS file system, and 800 GiB of data is stored in an IA storage medium. The read traffic in the IA storage medium is 1 GiB and the write traffic in the IA storage medium is 2 GiB within the month. The following table lists the fees that are incurred by File System A within the month based on storage plans and the pay-as-you-go billing method.

Billing method	Billing
	 Storage usage fee of the General-purpose NAS file system: 200 GiB × USD 0.06/GiB/month = USD 12
	 Storage usage fee of the IA storage medium = 800 GiB × USD 0.02322/GiB/month = USD 18.576
Pay-as-you-go	Read and write traffic fees
	• Read traffic fee = 1 GiB × USD 0.00929/GiB = USD 0.00929
	• Write traffic fee = 2 GiB × USD 0.00929/GiB = USD 0.01858
	Total fee = USD 12 + USD 18.576 + USD 0.00929 + USD 0.01858 = USD 30.60387

Billing method	Billing
Storage plan (500 GiB, one month)	The 500 GiB of storage capacity in the resource plan is used to first offset 200 GiB of storage usage from the Capacity NAS file system. The remaining capacity of the resource plan is calculated by using the following equation: 500 GiB - 200 GiB = 300 GiB.
	The 300 GiB of storage capacity is then used to offset 699.9 GiB of storage usage from the IA storage medium (300 GiB × 2.333 = 699.9 GiB). The excess storage usage of the IA storage medium is 100.1 GiB (800 GiB - 699.9 GiB = 100.1 GiB). The fee for this storage usage is calculated based on the pay-as-you-go billing method by using the following equation: 100.1 GiB × USD 0.02322 = USD 2.324322.
	Only the pay-as-you-go billing method can be used to calculate the read and write traffic fees of IA storage media.
	• Read traffic fee = 1 GiB × USD 0.00929/GiB = USD 0.00929
	• Write traffic fee = 2 GiB × USD 0.00929/GiB = USD 0.01858
	Storage usage fee = USD 22.85 + USD 2.324322 + USD 0.00929 + USD 0.01858 = USD 25.202192
	USD 22.85 is the fee of a storage plan (500 GiB, one month) for a Capacity NAS file system in the China (Beijing) region.

Example 4: Mr. Wang has created a Capacity NAS file system in the China (Hangzhou) region. The maximum storage usage per hour in January 2021 is 90 GiB. The following table shows the monthly fees that were generated by the file system based on resource plans and the pay-as-you-go billing method.

Billing method	Billing
Pay-as-you-go	Storage usage fee = 90 GiB \times 0.06 USD/GiB/month = USD 5.4.
General-purpose NAS resource plan (100 GiB, one month)	Storage usage fee = USD 4.57 The fee for a General-purpose NAS resource plan (100 GiB, one month) in the China (Beijing) region is USD 4.57.

Example 5: Mr. Zhang has created a Performance NAS file system and a Capacity NAS file system in the China (Hangzhou) region. The maximum storage usage per hour for the Performance NAS file system in January 2021 is 20 GiB. The maximum storage usage per hour for the Capacity NAS file system in January 2021 is 90 GiB. The following table shows the monthly fees that were generated by the file systems based on resource plans and the pay-as-you-go billing method.

Billing method	Billing
Pay-as-you-go	Total fee = 90 GiB × USD 0.06/GiB/month + 20 GiB × USD 0.3/GiB/month = USD 11.4

Billing method	Billing
General-purpose NAS resource plan (100 GiB, one month)	The 100 GiB of storage capacity in the resource plan is used to offset the fee for 18.28 GiB (100 GiB/5.47≈18.28 GiB) of storage usage from the Performance NAS file system. The fees for the excess storage usage are calculated based on the pay-as-you-go billing method.
	Total fee = USD 4.57 + (20 - 18.28) GiB × USD 0.3/GiB/month + 90 GiB × USD 0.06/GiB/month = USD 10.486
	The fee for a General-purpose NAS resource plan (100 GiB, one month) in the China (Beijing) region is USD 4.57.
General-purpose NAS resource plan (200 GiB, one month)	Total fee = USD 9.14 The fee for a General-purpose NAS resource plan (200 GiB, one month) in the China (Hangzhou) region is USD 9.14.

FAQ

- When does a resource plan take effect after I purchase the resource plan? How can I calculate the time at which a resource plan takes effect or becomes ineffective?
- Can I purchase multiple resource plans at a time?
- How does a resource plan offset multiple storage classes of General-purpose NAS file systems?
- Can I still use the storage plan that is attached to a file system after I purchase a resource plan?
- FAQ about pricing

2.Billing of IA storage media

If you enable lifecycle management for your General-purpose NAS file system, data that meets the specified lifecycle policies is dumped to an Infrequent Access (IA) storage medium. You are charged for the used space of the IA storage medium and read and write traffic. The lifecycle management feature helps you reduce costs for using NAS file systems. This topic describes the billing method of General-purpose NAS file systems for which the lifecycle management feature is enabled.

Limits

Infrequently accessed files are dumped from a file system to an IA storage medium only in batches to ensure the performance of the file system. Dumped files no longer occupy the storage space of the file system. When the files are being dumped, each file has a replica in the storage space of the file system and the IA storage medium. This temporarily increases storage usage and incurs additional fees. After the files are dumped, the replica and files in the file system are deleted and no longer incur additional fees.

Note IA storage media cannot be separately purchased. For more information, see IA storage media.

Billable item	Description
Storage usage	 The usage of a General-purpose NAS file system and the usage of an IA storage medium. Fees are calculated based on the maximum used storage per hour. The used storage space indicates the total size of all files in a file system. The size of directories is not included. The basic storage unit is 4 KiB. If the size of a file is less than 4 KiB, the billed storage space of the file is rounded up to 4 KiB. If the size of a file is larger than 4 KiB, the billed storage space is rounded up to the nearest multiple of 4 KiB. For example, if the size of a file is 2 KiB, the size of the file is counted as 4 KiB. If the size of a file is 6KiB, the size of the file is counted as 4 KiB. File holes occupy storage space in NAS. You are charged for the file holes in your NAS file system. A file hole consists of zeros that are not written to a file. You can create a file hole by using the truncate, lseek, or fallocate command. After you enable the recycle bin feature, you are charged for the storage usage of the temporary files in the recycle bin based on the pricing of the original storage type during the retention period. For example, if you delete a file from a Capacity NAS file system, you are charged for the file based on the unit price of storage space in Capacity NAS file systems. Likewise, if you delete a file from an IA storage medium, you are charged for the file based on the unit price of storage space in the IA storage medium. For more information, see Enable the recycle bin feature.

Billable items

Billable item	Description
Read and write traffic	Traffic fees are incurred when the data in an IA storage medium is accessed. Fees are calculated based on the total amount of read and write traffic per hour. The amount of read and write traffic is reset to 0 each time an hourly bill is generated. The amount of read and write traffic starts from 0 again for subsequent hours.
	• If the data in the file system meets the lifecycle management rules, the data is automatically dumped to the IA storage medium. No write traffic fees are incurred for the data transfer.
	 If you access files in an IA storage medium, you are charged for the actual read and write traffic. If you read only a part of a file, you are charged for the read traffic that is generated.
	 If you run a data retrieval task, you are charged for read traffic based on the size of the retrieved files.
	 If you back up files from an IA storage medium, you are charged for read traffic based on the size of the files.
	• You are not charged for managing metadata in the IA storage medium. For example, you are not charged for running the ls command to show the metadata of specified files.

Billing cycle

The fees that are generated within an hour are deducted from your account balance in the next hour. For example, you are billed at 09:30:00 for the fees that are generated from 08:00:00 to 09:00:00 of the same day.

Note The bill that you receive at 09:30:00 may include only the fees that are generated from 07:00:00 to 08:00:00 because of system latency.

Comparison of billing methods

By default, NAS file systems are billed based on the pay-as-you-go billing method. You can also purchase resource plans and storage capacity units (SCUs) to offset fees. The following table compares the operations and billable items that are supported by each billing method. A check sign (<) indicates that the operation is supported by the billing method. A cross sign (×) indicates that the operation is not supported by the billing method. A hyphen (-) indicates that the operation is not applicable to the billing method.

Note If you have resource plans, SCUs, and storage plans within your Alibaba Cloud account, storage usage fees are offset based on the following sequence: storage plans, resource plans, and SCUs. Then, you are charged based on the pay-as-you-go billing method.

Туре	Billable item	Purcha se	Offset the storag e usage fees of Genera L- purpos e NAS file system s of differe nt storag e types	Offset the storag e usage fees of multipl e NAS file system s	Offset only the storag e usage fees of NAS file system s	Renew al	Upgra de	Purcha se multipl e resour ce plans
Pay- as- you-go	All billable items of NAS file systems	-	-	-	_	-	-	-
Resour ce plan	 Storage usage of General- purpose NAS file systems Storage usage of IA storage media 	<i>J</i>	J	J	J	•	<i>✓</i>	•
Storag e plan	 Storage usage of General- purpose NAS file systems Storage usage of IA storage media 	×	×	×	J	1	1	×
Storag e capacit y units (SCUs)	Storage usage of General-purpose NAS file systems	<i>.</i>	J	J	×	×	×	~

Billing methods

• Pay-as-you-go

After you create an Apsara File Storage NAS file system, you are billed based on the pay-as-you-go billing method by default.

The storage usage fee in a billing cycle is calculated by using the following formula: Storage usage fee = Storage usage fee of a General-purpose NAS file system + Storage usage fee of an IA storage medium + Traffic fee of the IA storage medium = Maximum storage usage of a General-purpose NAS file system per hour × Unit price per hour + Maximum storage usage of an IA storage medium per hour × Unit price per hour + Amount of read traffic × Unit price per hour + Amount of write traffic × Unit price per hour

? Note

- If the lifecycle management feature is enabled, the storage usage of the Generalpurpose NAS file system is a storage space. This storage space is occupied by the data that is not dumped to an IA storage medium.
- You can log on to the NAS console to view the storage usage in the Basic Information section. The storage usage is updated once per hour. In some cases, the storage usage that is displayed in the console at the current local time is the storage usage in the previous hour because of latency.
- General-purpose NAS file systems are divided into two types: Capacity NAS file system and Performance NAS file system. The two types have different unit prices for storage usage. For NAS file systems, the unit of storage usage fee is USD/GiB/month.When you calculate the storage usage fee, you must convert the unit of measurement to USD/GiB/hour. For more information, see Apsara File Storage NAS pricing.
- Resource plans (recommended)

A resource plan is a type of subscription billing method. You can purchase multiple resource plans and use the resource plans to offset the storage usage fees of multiple file systems. Resource plans are applied to offset the fees based on the following sequence: Performance NAS file systems, Capacity NAS file systems, and IA storage media.

• Purchase method

For more information about how to purchase a resource plan, see Manage resource plans.

• Offset rules

The following table describes the rules that are applied when you use resource plans to offset the storage usage fees of different storage types of NAS file systems in the Chinese mainland. To view the relevant information about the offset rules that are applied in other regions, you can use the calculator.

Specificatio n	Conversion coefficient	Description
Capacity NAS file system	1	You can use 1 GiB of base capacity in your General-purpose NAS resource plan to offset the fee for 1 GiB of storage usage from a Capacity NAS file system.
Performanc e NAS file system	5.47	You can use 5.47 GiB of base capacity in your General-purpose NAS resource plan to offset the fee for 1 GiB of storage usage from a Performance NAS file system.
IA storage media	0.37	You can use 0.37 GiB of base capacity in your General-purpose resource plan to offset the fee for 1 GiB of storage usage from an IA storage medium.

You can use the calculator that is provided by Alibaba Cloud to calculate the fees that are offset by the resource plans within your account in the current region. This way, you can select appropriate resource plans based on the current storage usage to reduce your costs.

• Renewal and upgrade

You can renew and upgrade a resource plan. For more information, see Manage resource plans.

• Storage capacity units (SCUs)

An SCU is a type of subscription billing method. You can purchase multiple SCUs and use them to offset the storage usage fees of multiple Alibaba Cloud storage services. SCUs are more flexible and cost-effective than storage plans that are dedicated to specific storage services.

Purchase method

For more information about how to purchase SCUs, see Create an SCU.

• Offset rules

You can use SCUs to offset the storage usage fees of NAS, Object Storage Service (OSS), and Elastic Compute Service (ECS) resources. The following table describes the rules that are applied when you use SCUs to offset the storage usage fees of different storage classes of NAS file system in the Chinese mainland. For more information about the rules that are applied in other Alibaba Cloud storage services and regions, visit the Pricing page.

File system type	Offset factor	Description
Capacity NAS file system	0.25	You can use 0.25 GiB of capacity in your SCU to offset the fee for 1 GiB of storage usage from a Capacity NAS file system.
Performanc e NAS file system	0.889	You can use 0.889 GiB of capacity in your SCU to offset the fee for 1 GiB of storage usage from a Performance NAS file system.

• Examples

Mr. Chen purchased a General-purpose NAS resource plan of 500 GiB and an SCU of 40 GiB in the China (Beijing) region in January 2021. In February 2021 in the China (Beijing) region, the storage usage of the Capacity NAS file system is 600 GiB and the storage usage of the Performance NAS file system is 200 GiB. The following table shows the values that are obtained after NAS calculates the monthly usage fee of the file systems based on the resource plan and the SCU.

File system type	Offset by resource plans	Offset by SCUs
Capacity NAS file system	You can use 500 GiB of capacity in your resource plan to offset the fee for 500 GiB of storage usage from the Capacity NAS file system.	You can use 25 GiB of capacity in your SCU to offset the fee for 100 GiB of storage usage from the Capacity NAS file system.
Performance NAS file system	None	You can use 15 GiB of capacity in your SCU to offset 16.87 GiB of storage usage from the Performance NAS file system.

• Storage plans

A storage plan is a type of subscription billing method. You can use a storage plan to offset only the storage usage fees of a file system to which the storage plan is attached.

Notice Alibaba Cloud supports resource plans for Apsara File Storage NAS. You can no longer purchase storage plans. However, you can renew or upgrade existing storage plans. Compared with a storage plan, a resource plan does not need to be bound to a file system. You can purchase multiple resource plans to offset the storage usage fees of multiple file systems.

- Offset rules
 - A storage plan is used to first offset the storage usage fee of General-purpose NAS file systems. If the storage plan still has a positive balance, the storage plan is used to offset the storage usage fee of an IA storage medium based on a specific coefficient.
 - If the following condition is met, the storage plan is sufficient to offset the storage usage fee of the IA storage medium: (Capacity of the storage plan Storage usage of the General-purpose NAS file system) × Coefficient Storage usage of the IA storage medium ≥ 0 GiB.
 - If the following condition is met, the storage plan is insufficient to offset the storage usage fee of the IA storage medium: (Capacity of the storage plan - Storage usage of the Generalpurpose NAS file system) × Coefficient - Storage usage of the IA storage medium < 0 GiB. The fees for the excess storage usage are calculated based on the pay-as-you-go billing method.

The coefficient in the preceding formulas varies based on the type of the file system. For Performance NAS file systems, the coefficient is 12.333. For Capacity NAS file systems, the coefficient is 2.333.

- You can attach only one storage plan to a General-purpose NAS file system at a time. If you delete the General-purpose NAS file system, its storage plan is automatically detached.
 However, the detached storage plan can be attached to another file system of the same type in the same region to offset the storage usage fee of the file system.
- Renewal and upgrade

You can renew and upgrade a storage plan. For more information, see Manage storage plans.

Examples

Example 1: Mr. Zhang has created a Performance NAS file system named File System A in the China (Beijing) region. The storage usage of File System A in January 2021 is 100 GiB per hour. In the storage usage, 10 GiB of data is stored in a General-purpose NAS file system, and 90 GiB of data is stored in an IA storage medium. The read traffic of the IA storage medium is 1 GiB and the write traffic of the IA storage medium is 2 GiB within the month. The following table lists the fees that are incurred by File System A within the month based on storage plans and the pay-as-you-go billing method.

Billing method	Billing
	 Storage usage fee of General-purpose NAS file system = 10 GiB × USD 0.3/GiB/month = USD 3 Storage usage fee of General-purpose NAS file system = 20 GiB × USD
	 Storage usage fee of the IA storage medium = 90 GiB × USD 0.02322/GiB/month = USD 2.0898
Pay-as-you-go	Read and write traffic fees of the IA storage medium
	• Read traffic fee = 1 GiB × USD 0.00929/GiB = USD 0.00929
	• Write traffic fee = 2 GiB × USD 0.00929/GiB = USD 0.01858
	Total fee = USD 3 + USD 2.0898 + USD 0.00929 + USD 0.01858 = USD 5.11767

Billing method	Billing
Resource plan for General-purpose NAS file systems (100 GiB, one month)	The 100 GiB of storage capacity in the resource plan is used to first offset 10 GiB of storage usage from the Performance NAS file system. The remaining storage capacity of the resource plan is calculated by using the following equation: 100 GiB - 10 GiB × 5.47 = 45.3 GiB.
	The 45.3 GB of storage capacity is then used to offset 90 GiB of storage usage from the IA storage medium. The remaining storage capacity of the resource plan is calculated by using the following equation: 45.3 GiB - 90 GiB × 0.37 =12 GiB.
	Only the pay-as-you-go billing method can be used to calculate the read and write traffic fees of IA storage media.
	• Read traffic fee = 1 GiB × USD 0.00929/GiB = USD 0.00929
	• Write traffic fee = 2 GiB × USD 0.00929/GiB = USD 0.01858
	Total fee = USD 4.57 + USD 0.00929 + USD 0.01858 = USD 4.59787
	USD 4.57 is the fee of a resource plan (100 GiB, one month) for a General- purpose NAS file system in the China (Beijing) region.

Example 2: Mr. Zhang has created a Performance NAS file system named File System A in the China (Beijing) region. The storage usage of File System A in January 2021 is 210 GiB per hour. In the storage usage, 10 GiB of data is stored in a General-purpose NAS file system and 200 GiB of data is stored in an IA storage medium. The read traffic of the IA storage medium is 1 GiB, and the write traffic of the IA storage medium is 2 GiB within the month. Mr. Zhang also has a Capacity NAS file system named File System B. The storage usage of File System B in January 2021 is 90 GiB per hour. The following table lists the fees that are incurred by File System A and File System B within the month based on storage plans and the pay-as-you-go billing method.

Billing method	Billing						
Pay-as-you-go	 Storage usage fees of the General-purpose NAS file system Storage usage fee of the Performance NAS file system = 10 GiB × USD 0.3/GiB/month = USD 3 Storage usage fee of the Capacity NAS file system = 90 GiB × USD 0.06/GiB/month = USD 5.4. Storage usage fee of the IA storage medium = 200 GiB × USD 0.02322/GiB/month = USD 4.644 Read and write traffic fees Read traffic fee = 1 GiB × USD 0.00929/GiB = USD 0.00929 Write traffic fee = 2 GiB × USD 0.00929/GiB = USD 0.01858 Total fee = USD 3 + USD 5.4 + USD 4.644 + USD 0.00929 + USD 0.01858 = USD 13.07187 						

Billing method	Billing
	The 100 GiB of storage capacity in the resource plans is used to first offset 10 GiB of storage usage from the Performance NAS file system. The remaining storage capacity of the resource plan is calculated by using the following equation: 200 GiB - 10 GiB × $5.47 = 145.3$ GiB. The 145.3 GiB of storage capacity is then used to offset 90 GiB of storage usage from the IA storage medium. The remaining storage capacity of the resource plan is calculated by using the following the following equation: 145.3 GiB - 90 GiB × $1 = 55.3$ GiB.
Two resource plans for	The 55.3 GiB of storage capacity is then used to offset 149.5 GiB of storage usage from the IA storage medium (55.3 GiB/0.37 \approx 149.5 GiB). The excess storage usage of the IA storage medium is 50.5 GiB (200 GiB - 149.5 GiB = 50.5 GiB) is calculated based on the pay-as-you-go billing method by using the following equation: 50.5 GiB × USD 0.02322 = USD 1.17261.
General-purpose NAS file systems (100 GiB, one month)	Only the pay-as-you-go billing method can be used to calculate the read and write traffic fees of IA storage media.
,	• Read traffic fee = 1 GiB × USD 0.00929/GiB = USD 0.00929
	• Write traffic fee = 2 GiB × USD 0.00929/GiB = USD 0.01858
	Total fee = USD 4.57 × 2 + USD 1.17261 + USD 0.00929 + USD 0.01858 = USD 10.34048
	USD 4.57 is the fee of a resource plan (100 GiB, one month) for a General- purpose NAS file system in the China (Beijing) region.

Example 3: Mr. Zhang has created a Capacity NAS file system named File System A in the China (Beijing) region. The storage usage of File System A in January 2021 is 1000 GiB per hour. In the storage usage, 200 GiB of data is stored in a General-purpose NAS file system, and 800 GiB of data is stored in an IA storage medium. The read traffic in the IA storage medium is 1 GiB and the write traffic in the IA storage medium is 2 GiB within the month. The following table lists the fees that are incurred by File System A within the month based on storage plans and the pay-as-you-go billing method.

Billing method	Billing					
Pay-as-you-go	 Storage usage fee of the General-purpose NAS file system: 200 GiB × USD 0.06/GiB/month = USD 12 Storage usage fee of the IA storage medium = 800 GiB × USD 0.02322/GiB/month = USD 18.576 Read and write traffic fees Read traffic fee = 1 GiB × USD 0.00929/GiB = USD 0.00929 Write traffic fee = 2 GiB × USD 0.00929/GiB = USD 0.01858 Total fee = USD 12 + USD 18.576 + USD 0.00929 + USD 0.01858 = USD 30.60387 					

Billing method	Billing
	The 500 GiB of storage capacity in the resource plan is used to first offset 200 GiB of storage usage from the Capacity NAS file system. The remaining capacity of the resource plan is calculated by using the following equation: 500 GiB - 200 GiB = 300 GiB.
Storage plan (500 GiB,	The 300 GiB of storage capacity is then used to offset 699.9 GiB of storage usage from the IA storage medium (300 GiB × 2.333 = 699.9 GiB). The excess storage usage of the IA storage medium is 100.1 GiB (800 GiB - 699.9 GiB = 100.1 GiB). The fee for this storage usage is calculated based on the pay-as-you-go billing method by using the following equation: 100.1 GiB × USD 0.02322 = USD 2.324322.
one month)	Only the pay-as-you-go billing method can be used to calculate the read and write traffic fees of IA storage media.
	• Read traffic fee = 1 GiB × USD 0.00929/GiB = USD 0.00929
	• Write traffic fee = 2 GiB × USD 0.00929/GiB = USD 0.01858
	Storage usage fee = USD 22.85 + USD 2.324322 + USD 0.00929 + USD 0.01858 = USD 25.202192
	USD 22.85 is the fee of a storage plan (500 GiB, one month) for a Capacity NAS file system in the China (Beijing) region.

FAQ

- What are the differences between a General-purpose NAS resource plan and a General-purpose NAS storage plan? Which plan is recommended?
- How does a resource plan offset multiple storage classes of General-purpose NAS file systems?
- How am I charged if my files are dumped to an IA storage medium?
- Am I charged for a data retrieval task?
- How am I charged when I back up files that are stored in an IA storage medium?
- FAQ about the billing of IA storage media

3.Billing of Extreme NAS file systems

After you create an Extreme NAS file system, you are billed based on the pay-as-you-go billing method by default. You can also purchase resource plans to offset storage usage fees of Extreme NAS file systems. This topic describes how you are billed for Extreme NAS file systems and how you can renew Extreme NAS file systems.

Billable items

Billable item	Description
Storage capacity	You are billed based on the storage capacity that you purchase. The billing cycle is 1 hour.

Billing methods

• Pay-as-you-go

After you create a NAS file system, you are billed based on the pay-as-you-go billing method by default.

The storage usage fee is calculated by using the following formula: Storage usage fee = Capacity of the Extreme NAS file system × Unit price per hour.

In the preceding formula, the capacity of the Extreme NAS file system is the capacity that you purchased. You are billed per hour based on the capacity instead of the storage usage.

(?) Note For NAS file systems, the unit of storage usage fees is USD/GiB/month. When the storage usage fee is calculated, the unit of measurement is converted to USD/GiB/hour. For more information, see Apsara File Storage NAS pricing.

Resource plan

A resource plan is a type of subscription billing method. You can purchase multiple resource plans at a time and use them to offset the storage usage fees of multiple file systems.

• Purchase method

You can use resource plans to offset the storage usage fees of a pay-as-you-go Extreme NAS file system. For more information, see Purchase resource plans.

? Note You cannot change the billing method of Extreme NAS file systems from subscription to pay-as-you-go. You cannot use resource plans to offset storage usage fees of your subscription Extreme NAS file systems.

• Offset rules

The following table describes the offset rules that apply when you use resource plans to offset the storage usage of different storage types of NAS file systems in mainland China. For the offset rules that are applied in other regions, you can use the calculator to view the relevant information.

Specificatio n	Conversion coefficient	Description
Standard Extreme NAS	1	You can use 1 GiB of base capacity in your Extreme NAS resource plan to offset 1 GiB of storage usage from a standard Extreme NAS file system.
Advanced Extreme NAS	1	You can use 1 GiB of base capacity in your Extreme NAS resource plan to offset 1 GiB of storage usage from an advanced Extreme NAS file system.

You can use the calculator provided by Alibaba Cloud to calculate the offsets of the resource plans within your account in the current region. This way, you can select appropriate resource plans based on the current usage to save your costs.

• Renewal and upgrade

If you do not renew your resource plan when it expires, you can still use the associated file system. However, the billing method of the file system is changed to pay-as-you-go.

You can renew and upgrade a resource plan. For more information, see Manage resource plans.

• Subscription

Subscription is a type of billing method that you can use to offset the storage usage fees of only the existing subscription Extreme NAS file systems.

? Note Alibaba Cloud has released resource plans for Apsara File Storage NAS. You can no longer purchase subscription Extreme NAS file systems. However, you can still renew and upgrade the existing Extreme NAS file systems. You can use a storage plan to offset the storage usage fees of only the Extreme NAS file system to which the storage plan is attached. In contrast, you can use multiple resource plans to offset the storage usage fees of multiple Extreme NAS file systems.

- Offset rules
 - After you create a subscription Extreme NAS file system, NAS offsets the subscription quota based on the maximum capacity of your file system.
 - The storage capacity that you purchased is the maximum storage capacity of the Extreme NAS file system. If the size of the data that you want to write to the file system exceeds the capacity, you must scale up the file system. Otherwise, the excess data cannot be written to the file system. For more information, see Scale up an Extreme NAS file system.
- Renewal

When a subscription Extreme NAS file system expires, it is automatically stopped. In this case, the data is temporarily retained but is inaccessible. When the subscription Extreme NAS file system is renewed, it is automatically resumed. For more information, see Renew a subscription Extreme NAS file system.

Examples

In this example, Mr. Wang has created an Extreme NAS file system in the China (Hangzhou) region. The average storage usage per hour in July 2020 was 1 TiB. The following table lists the monthly fees that were incurred by the file system based on the pay-as-you-go billing method and a resource plan (1 TiB, one month).

Billing method	Fee
Pay-as-you-go	Storage usage fee = 1,024 GiB × 0.3 USD/GiB/month = USD 307.2
Resource plan	Storage usage fee = USD 252.8256 USD 252.8256 is the fee of the resource plan (1 TiB, one month) that Mr. Wang purchased for the subscription Extreme NAS file system.

Renew a subscription Extreme NAS file system

If you have a subscription Extreme NAS file system, you can renew the file system before it expires. If you renew the file system, you can select a duration to specify the validity period for the file system. If you enabled the auto-renewal feature when you created your subscription Extreme NAS file system, you can disable the feature in the User Center.

- Renew the file system.
 - i. Log on to the NAS console.
 - ii. In the left-side navigation pane, choose File System > File System List. Find the file system, and choose More > Renewal Fee in the Actions column.
 - iii. On the Renew page, select a duration. The expiration date appears.

The minimum duration is one month and the maximum duration is three years. You can renew the Extreme NAS file system again before it expires.

- iv. Confirm your settings, and select **Extreme NAS Terms of Service**. Click **Buy Now**, and then complete the payment as prompted.
- Disable the auto-renewal feature.
 - i. Log on to the Bill Management console.
 - ii. On the **Auto** tab, find the Extreme NAS file system for which you want to disable the autorenewal feature.
 - iii. In the Actions column, click Nonrenewal.
 - iv. In the Set as Nonrenewal dialog box, click OK.

On the **Nonrenewal** tab, you can view the Extreme NAS file system for which the auto-renewal feature is disabled.

FAQ

- Can I change the billing method of an Extreme NAS file system from subscription to pay-as-you-go?
- When does a resource plan take effect after I purchase the resource plan? How can I calculate the time at which a resource plan takes effect or becomes ineffective?
- Can I use a resource plan to offset the storage usage fee of a subscription Extreme NAS file system?
- Why are the storage usage and the fees for a file system unchanged after I delete data from the file

system?

• FAQ about billing of Extreme NAS file systems

4.Manage storage plans

A storage plan is a type of subscription billing method. You can use a storage plan to offset the storage cost of a NAS file system to which the storage plan is bound. This topic describes how to upgrade and renew a storage plan.

Notice Alibaba Cloud supports resource plans for Apsara File Storage NAS. You can no longer purchase storage plans. However, you can renew or upgrade existing storage plans. Compared with a storage plan, a resource plan does not need to be bound to a file system. You can purchase multiple resource plans to offset the storage usage fees of multiple file systems.

Upgrade a storage plan

If the capacity of a storage plan bound to a file system does not meet your business requirements, we recommend that you purchase a resource plan. Compared with a storage plan, a resource plan does not need to be bound to a file system. You can purchase multiple resource plans to deduct the storage usage fees of multiple file systems. If you want to upgrade the specifications of an existing storage plan, perform the following steps:

- 1. Log on to the NAS console.
- 2. In the left-side navigation pane, choose **Resource Plans**.
- 3. On the Resource Plans page, click the Storage Plan tab.
- 4. Find the storage plan and click **Upgrade**.
 - ? Note
 - You can upgrade a storage plan, but you cannot downgrade a storage plan.
 - If you upgrade a storage plan, the file system to which the storage plan is bound is not affected.
- 5. On the **Upgrade/Downgrade** page, select a storage capacity. The price of the selected storage capacity appears.

The capacity of an upgraded storage plan ranges from 500 GiB to 1 PiB.

6. Confirm your settings, select NAS Storage Package Terms of Service, click Buy Now, and then complete the payment as prompted.

Renew a storage plan

After your storage plan expires, we recommend that you purchase a resource plan. Compared with a storage plan, a resource plan does not need to be bound to a file system. You can purchase multiple resource plans to deduct the storage usage fees of multiple file systems. If you want to continue to use a storage plan, perform the following steps to renew the storage plan before the expiration date.

Notice After a storage plan expires, it is automatically released and can no longer be renewed. If you want to continue to use the storage plan, you must renew the storage plan before the expiration date.

1. Log on to the NAS console.

- 2. In the left-side navigation pane, choose **Resource Plans**.
- 3. On the Resource Plans page, click the Storage Plan tab.
- 4. Find the storage plan and click **Renew**.
- 5. On the **Renew** page, select a duration. The expiration date appears.

The minimum duration is one month and the maximum duration is three years. You can renew the storage plan again before the expiration date.

6. Confirm your settings, select NAS Storage Package Terms of Service, click Buy Now, and then complete the payment as prompted.

5.Manage resource plans

A resource plan is a type of subscription billing method that offers higher discounts than the pay-asyou-go billing method. Compared with a storage plan, a resource plan does not need to be bound to a file system. You can purchase multiple resource plans to offset the storage usage fees of multiple file systems. This topic describes how to purchase, renew, and upgrade a resource plan. This topic also describes how to view the remaining storage capacity of a resource plan.

Prerequisites

If you purchase a resource plan as a RAM user, you must grant the AliyunNASFullAccess permission on the NAS file system to the RAM user. For more information, see Perform access control based on RAM policies.

Usage notes

- For information about the deduction rules of resource plans, see Billing of General-purpose NAS file systems, Billing of IA storage media and Billing of Extreme NAS file systems.
- For information about the differences between resource plans, storage plans, and storage capacity units (SCUs), see Comparison of billing methods.
- The unit price of a General-purpose NAS resource plan is different from the unit price of an Extreme NAS resource plan.On the File Storage NAS Pricing page, click Subscription-Pricing to view the pricing details of the resource plan.

Purchase a resource plan

- 1. Log on to the NAS console.
- 2. In the left-side navigation pane, choose **Resource Plans**.
- 3. On the Resource Plans page, click Purchase Resource Plan.
- 4. On the **Storage Plan** page, set the following parameters of a resource plan, and then click **Buy Now**.

Parameter	Description				
Resource Plan Type	 Select a resource plan type based on the storage class of your file system. General-purpose NAS Resource Plan: offsets the storage usage fees of General-purpose NAS file systems. Extreme NAS Resource Plan: offsets the storage usage fees of Extreme NAS file systems. 				
Region	Select the region where the resource plan resides. After you specify a region for a resource plan, you can use the resource plan to offset the storage fees of only the NAS file systems that reside in the same region.				

Parameter	Description				
	The quota of a General-purpose NAS resource plan. You can use the base capacity to deduct the storage usage fees of a General-purpose NAS file system.				
Base Capacity	You can use the calculator feature provided by Alibaba Cloud to calculate the amount offset by the resource plans within your account in the current region. This way, you can select appropriate General-purpose or Extreme resource plans based on the current storage usage.				
Quantity	Default value: 1.				
Duration	Select a validity period for the resource plan.				

- 5. Check the resource plan settings, read and select **NAS Resource Plan Terms of Service**, and then click **Pay**.
- 6. Confirm the order and click **Buy**.

Renew a resource plan

- 1. Log on to the NAS console.
- 2. In the left-side navigation pane, choose **Resource Plans**.
- 3. Find the resource plan that you want to renew and click **Renew**.
- 4. On the **Renew** page, adjust the slider to select a duration.
- 5. Check the resource plan settings, read and select NAS Resource Plan Terms of Service, and then click Pay.
- 6. Confirm the order and click **Buy**.

Upgrade a resource plan

- 1. Log on to the NAS console.
- 2. In the left-side navigation pane, choose **Resource Plans**.
- 3. Find the resource plan that you want to upgrade and click **Upgrade**.
- 4. On the **Upgrade/Downgrade** page, select a new base storage capacity to which you want to upgrade the resource plan.
- 5. Check the resource plan settings, read and select NAS Resource Plan Terms of Service, and then click Pay.
- 6. Confirm the order and click **Buy**.

View remaining capacity

- 1. Log on to the NAS console.
- 2. In the left-side navigation pane, choose **Resource Plans**.
- 3. On the Resource Plans page, click View Calculation Method.

You can view the billed storage usage of General-purpose or Extreme NAS file systems and their resource plan usage. This way, you can select an appropriate resource plan to reduce costs.

View the usage details of resource plans.

- 1. Log on to the NAS console.
- 2. In the left-side navigation pane, choose **Resource Plans**.
- 3. On the Resource Plans page, click the Resource Plan Details tab.
- 4. Enter search parameters in the **Deducted Time** and **Resource Package Instance ID** fields, and then click **Search**.

You can query the used storage capacity and remaining storage capacity of each resource plan in the list.

OpenAPI

You can call API operations to manage your resource plans.

(?) Note When you call an API operation, set the ProductCode request parameter to nas.

- DescribeResourcePackageProduct
- QueryResourcePackageInstances
- For information about more resource plan-related APIs, see More resource plan-related APIs.

FAQ

- When does a resource plan take effect after I purchase the resource plan? How can I calculate the time at which a resource plan takes effect or becomes ineffective?
- Why do I still have overdue payments after I purchase a resource plan?
- Do I need to attach a resource plan to a General-purpose NAS file system to offset the storage usage fee of the file system?
- How much cost can I save if I purchase a resource plan to offset the storage usage fee of a Generalpurpose NAS file system?
- What are the differences between a General-purpose NAS resource plan and a General-purpose NAS storage plan? Which plan is recommended?
- What do I do after a resource plan expires?
- What do I do if the storage usage exceeds the capacity in a resource plan?
- Can I purchase multiple resource plans at a time?
- How does a resource plan offset multiple storage classes of General-purpose NAS file systems?
- Can I use a resource plan to increase the bandwidth of a file system?
- Can I still use the storage plan that is attached to a file system after I purchase a resource plan?
- For more FAQ about resource plans, see More FAQ about resource plans.

6.View billing and usage details

You can view the billing and usage details of Apsara File Storage NAS in the Alibaba Cloud Management Console.

View the billing details of file systems

- 1. Log on to the NAS console.
- 2. In the top navigation bar, click Expenses.
- 3. In the left-side navigation pane, choose **Spending Summary > Spending Summary**.
- 4. On the Bills page, click a tab to view the billing details.
 - On the **Overview** tab, you can view the consumption trend in the previous 6 months. The Overview tab also displays the consumption ratio of each product, the total consumption amount, and the consumption summary of each product in the billing cycle that you select.
 - On the **Bills** tab, you can view the list of orders in the billing cycle that you select. You can also perform an exact search by order number.
 - On the **Details** tab, you can view bill details by statistic item and statistic period. The bill details include information such as billable items, usage, prices, and deduction details of a specific service.
 - ? Note
 - In the upper-right corner of the Bills tab, you can click Customize Column Options to select billable items to display.
 - If you want to analyze bills, click Export Billing Overview (CSV) to export and view bills on your computer.
 - The total storage usage of General-purpose NAS file systems includes the storage usage of Capacity NAS file systems, the storage usage of Performance NAS file systems, and the storage usage of the recycle bin. For more information, see Query the resource usage of a file system.

For example, if you want to view the bills of a pay-as-you-go file system that you created in January 2020, you can filter the bills based on the conditions, as shown in the following figure. The following table describes the billing details.

Bills	3h														
Overview	Convex 8s Tests Conversion														
🕕 Bill details	will be updated in 1 day, e	arliest bit cycle for Cloud Commu	unication is June 2020 (domain servic	e details are not included). View Cloud Communication	rs HiChina Products										
Billing Cycle:	2020-01	Resource Group: All	Resource Grou V	a Nama 🗸	Search										
	Billing Item O Inst		t O Cost Center												
Statistic Period:	 Billing Cycle Billing Cycle 	Day 🚫 Billing Period													
Product Deta	il: Network Attached Stora	pe (Pay-Ao-You-Go) × Clear		2									② Custi	omize Column Options 🔬	, Export Billing Overview (CSV)
Billing Cycle	Cost Center 🖓	Account Name 🖓	Product Name 🙄	Product Detail	Subscription Type 🙄	Instance ID	Resource Group	Region	Billing Item	List Price	Usage	Usage Unit	Pretax Gross Amount	Invoice Discount	Deducted By Coupons
2020-01	Not Allocated	10.000	Apsara File Storage NAS	Network Attached Storage (Pay-As-You-Go)	Pay-As-You-Go			China (Hangzhou)	Storage	-	0	GB	USD	USD	USD
2020-01	Not Allocated		Apsara File Storage NAS	Network Attached Storage (Pay-As-You-Go)	Pay-As-You-Go	-		China (Hangzhou)	Storage	1000	67.71	GB	USD	USD	USD
2020-01	Not Allocated		Apsara File Storage NAS	Network Attached Storage (Pay-As-You-Go)	Pay-As-You-Go	1000		China (Shanghai)	Storage		٥	GB	uso	USD	USD
2020-01	Not Allocated		Apsara File Storage NAS	Network Attached Storage (Pay-As-You-Go)	Pay-As-You-Go	1000		China (Shanghai)	Storage		٥	GB	USD	USD	USD
2020-01	Not Allocated		Apsara File Storage NAS	Network Attached Storage (Pay-As-You-Go)	Pay-As-You-Go	1000		US (Silicon Valley)	Storage	-	0	GB	USD	USD	USD
Parameter Description															

Parameter	Description
Billing cycle	The billing cycle. You are billed for the usage of NAS resources per month. Multiple records for a single file system are generated per month because the billing system automatically splits the monthly bill of the file system into these records. If you want to obtain the total duration of the service, you can add the service duration of each record.
Billing methods	 The following billing methods are supported: NAS resource plan NAS storage plan NAS file system (pay-as-you-go) Extreme NAS file system Extreme NAS (Pay-as-you-go)
Billable items	 The following list describes the billable items and the billing methods that can be used for each item: General-purpose base capacity: NAS resource plan Offset capacity: NAS storage plan Storage usage: storage usage for General-purpose NAS file systems based on the pay-as-you-go billing method. The storage usage for Infrequent Access (IA) storage media is excluded. Storage usage for IA storage media: storage usage for the IA storage media of General-purpose NAS file systems based on the pay-as-you-go billing method. Read traffic for level-2 storage: read traffic for IA storage media based on the pay-as-you-go billing method. Write traffic for level-2 storage: write traffic for IA storage media based on the pay-as-you-go billing method. Configuration capacity: configuration capacity of Extreme NAS file systems.
Unit price	You are billed for a billable item per hour. The unit price of each billable item is unique. The actual unit price of each billable item is based on your bill. Unit: CNY/GiB.
Usage	The monthly usage of a file system is calculated by using following formula: Monthly usage = Sum of hourly usage - Usage that is offset by the purchased storage plans and resource plans. Unit: GiB. Hourly average storage usage per month = Usage data/Number of calendar days of the current month/24

Parameter	Description
Usage offset	The storage capacity of plans that you can use to offset the monthly usage of a file system. Unit: MiB. The total usage is offset based on the following sequence: storage plans, resource plans, and Storage Capacity Units (SCUs). You are charged for the remaining usage based on the pay-as-you-go billing method.
Official price	The fees for the remaining usage based on the pay-as-you-go billing method. The remaining usage is calculated by using the following formula: Remaining usage = Total usage - Total capacity of the available plans.

Example: User A creates a General-purpose NAS Capacity file system in the China (Beijing) region. The hourly usage of the file system is 1,000 GiB in January 2021. A storage plan of 500 GiB is attached to the file system and the user purchases two 100 GiB General-purpose NAS resource plans. The following billing details are displayed in the monthly bill:

- Usage: (1000 GiB-500 GiB-100 GiB-100 GiB) × 31 × 24 = 223,200 GiB
- Offset by resource plan: (100 GiB + 100 GiB) × 1024 = 204,800 MiB
- Official price: 223,200 GiB × CNY 0.00048 per GiB = CNY 108.48

Total monthly fee: CNY 108.48 + CNY 150 + CNY 30 + CNY 30 = CNY 318.48

In the preceding formula, CNY 150 is the 1-month subscription fee for a Capacity storage plan of 500 GiB. CNY 30 is the 1-month subscription fee for a General-purpose NAS resource plan of 100 GiB.

Query the usage details of file systems

- 1. Log on to the NAS console.
- 2. In the top navigation bar, click **Expenses**.
- 3. In the left-side navigation pane, click Usage Records.
- 4. On the Usage Records page, configure the parameters. The following table describes the parameters.

Parameter	Description
Product	Select Apsara File Storage NAS.
Time Period	Select the time range for the query. The start time and the end time must be within the same month. Cross-month queries are not supported. For example, if you select 2019-04-01 as the start time, the end time can be up to 2019-04-30. In this case, you cannot select 2019-05-01 as the end time.
	Note If you want to query the usage details of more than 12 months, submit a ticket.
Time Unit	By default, Hour is selected.

Parameter	Description
Verification Code	Enter the verification code in the image.

5. Click Export CSV. After a table is generated, click Download in the Actions column to save the table to your computer. Then, you can view the usage details of the file systems.

View the usage details of resource plans

- 1. Log on to the NAS console.
- 2. In the left-side navigation pane, choose **Resource Plans**.
- 3. On the Resource Plans page, click the Resource Plan Details tab.
- 4. Enter search parameters in the **Deducted Time** and **Resource Package Instance ID** fields, and then click **Search**.

You can query the used storage capacity and the remaining storage capacity of each resource plan in the list.
7. Overdue payments

This topic describes overdue payments for Apsara File Storage NAS and how the status of NAS changes when overdue payments occur.

Causes

An overdue payment occurs due to one of the following reasons:

- General-purpose NAS file systems
 - The occupied storage space of a General-purpose NAS file system exceeds the capacity limit of the storage plan that is bound to the file system and your account balance is insufficient.
 - The storage plan that is bound to a General-purpose NAS file system expires and your account balance is insufficient.
 - No storage plan is bound to a General-purpose NAS file system and your account balance is insufficient.
- Extreme NAS file systems

The pay-as-you-go billing method is used for an Extreme NAS file system and your account balance is insufficient.

Service status changes

An overdue payment results in the following service status changes:

- General-purpose NAS file system
 - To ensure service continuity, you must settle overdue payments in 15 days.
 - If you do not settle overdue payments in 15 days, NAS becomes unavailable. You are still charged for the storage space. Therefore, the overdue amount continues to increase. If you settle overdue payments in 22 days, NAS becomes available again.
 - If you do not settle overdue payments in 22 days, Alibaba Cloud assumes that you no longer require NAS. Your data stored in NAS is deleted. You cannot restore your data. Before your data is deleted, you are still charged for the storage space. If you no longer require NAS, we recommend that you delete all data from NAS.
- Extreme NAS file system
 - To ensure service continuity, you must settle overdue payments in 15 days.
 - If you do not settle overdue payments in 7 days, Alibaba Cloud assumes that you no longer require NAS. Your data stored in NAS is deleted. You cannot restore your data. If you no longer require NAS, we recommend that you delete all NAS file systems. Otherwise, you are still charged for the storage space of your file systems.

8.Billing FAQ

- Billing
 - Am I charged after I activate Apsara File Storage NAS?
 - How can I stop being charged for Apsara File Storage NAS?
 - Why are the storage usage and the fees for a file system unchanged after I delete data from the file system?
 - How am I charged when I upload data to or download data from a file system?
 - How am I billed for the storage usage of a NAS file system?
 - How am I charged when I dump my files to an Infrequent Access (IA) storage medium?
 - How am I charged when I back up files that are stored in an IA storage medium?
 - Am I charged when I retrieve data?
 - Am I charged when I use the recycle bin?
 - Why are the storage usage records displayed on my bills different from the storage usage records displayed in the console?
 - Can I change the billing method of an Extreme NAS file system from subscription to pay-as-yougo?
- Resource plan
 - When does a resource plan take effect after I purchase the resource plan? How can I calculate the time at which a resource plan takes effect or becomes ineffective?
 - Why do I still have overdue payments after I purchase a resource plan?
 - Do I need to attach a resource plan to a General-purpose NAS file system to offset the storage usage fee of the file system?
 - How much cost can I save if I purchase a resource plan to offset the storage usage fee of a General-purpose NAS file system?
 - What are the differences between a General-purpose NAS resource plan and a General-purpose NAS storage plan? Which plan is recommended?
 - What do I do after a resource plan expires?
 - What do I do if the storage usage exceeds the capacity in a resource plan?
 - Can I purchase multiple resource plans at a time?
 - Can I use a resource plan to increase the bandwidth of a file system?
 - Can I still use the storage plan that is attached to a file system after I purchase a resource plan?
 - Can I use a resource plan to offset the storage usage fee of an Extreme NAS file system?
 - Can I apply for a refund after I purchase a resource plan?
 - Can I use a resource plan to offset the storage usage fee of a subscription Extreme NAS file system?
 - Why do I need more storage capacity of resource plans to offset the storage usage fee of a Performance NAS file system?
- Storage plan
 - Why do I still have overdue payments after I purchase a storage plan?
 - What is the relationship between a storage plan and the capacity of a file system?

- Is the capacity of a file system limited to the capacity of a storage plan?
- When does a storage plan take effect?
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- What happens if the storage usage of a file system exceeds the storage capacity of a storage plan?
- Can I purchase a storage plan if I do not attach it to a file system?
- How can I detach a storage plan from a file system?
- How can I change the file system to which a storage plan is attached?
- Can I apply for a refund after I purchase a storage plan?
- Can Lattach a storage plan to an Extreme NAS file system?
- How can I view the expiration time of a storage plan?
- Can I attach multiple storage plans to a file system?
- Overdue payment
 - How can I check whet her I have overdue payments?

Am I charged after I activate Apsara File Storage NAS?

No, you are not charged if you only activate Apsara File Storage NAS. You are charged when you write data to NAS file systems.

How can I stop being charged for Apsara File Storage NAS?

You cannot stop being charged for Apsara File Storage NAS by deactivating the service. This is because deactivating the service can result in business disruptions.

If you no longer want to use Apsara File Storage NAS, you can delete all mount targets of each file system, and then delete all the file systems. Then, you are not charged from the next billing cycle.

Why are the storage usage and the fees for a file system unchanged after I delete data from the file system?

The data size that is displayed in the Apsara File Storage NAS console is unchanged because a latency exists between two consecutive data updates. Bills are generated on an hourly basis. The bill of the previous hour is displayed in the Apsara File Storage NAS console.

How am I charged when I upload data to or download data from a file system?

• Dat a migration from an on-premises storage system to Apsara File Storage NAS

To enable access from the Internet to a NAS file system, you must configure an Elastic Compute Service (ECS) instance as an intermediate node. The ECS instance must allow access from the Internet. You are not charged for the inbound traffic of an elastic IP address (EIP). However, you are charged for the outbound traffic of an EIP. In this case, you are charged for the data that is downloaded from a NAS file system. However, you are not charged for the data that is uploaded to the NAS file system. For more information, see EIP billing.

• Data migration between Object Storage Service (OSS) and Apsara File Storage NAS

- If you read data from or write data to the Infrequent Access (IA) storage medium of a NAS file system, you are charged for the read and write traffic. For more information, see Billing of IA storage media.
- You are charged for API requests when you call API operations to read data from or write data to OSS buckets. For more information, see API operation calling fees.
- You are charged for the Data Transport service. The charges are included into your Data Transport bill. For more information, see Pricing.
- Data migration between NAS file systems
 - You are charged for the traffic that is generated when you read data from or write data to the IA storage medium of a NAS file system. For more information, see Billing of IA storage media.
 - You are charged for the Data Transport service. For more information, see Pricing.

How am I billed for the storage usage of a NAS file system?

• General-purpose NAS file system

You are billed for a General-purpose NAS file system on an hourly basis based on the maximum storage usage. The storage usage indicates the total size of all files in the General-purpose NAS file system, excluding the size of directories. The basic storage unit is 4 KiB. If the size of a file is not a multiple of 4 KiB, the billed storage usage is rounded up to the nearest multiple of 4 KiB. For example, if the size of a file is 3 KiB, you are billed for a storage usage of 4 KiB.

• Extreme NAS file system

You are billed based on the capacity that is configured when you create an Extreme NAS file system.

How am I charged if my files are dumped to an IA storage medium?

If your files are dumped to an IA storage medium, you are charged based on the billing method of the IA storage medium. For more information, see Billing of IA storage media.

How are read and write traffic fees calculated for an IA storage medium?

You are billed based on the total amount of read and write traffic per hour when you read data from or write data to the IA storage medium. The amount of read and write traffic is reset to 0 each time an hourly bill is generated. The amount of read and write traffic starts from 0 again for subsequent hours.

- If the data in the file system meets the lifecycle management rules, the data is automatically dumped to the IA storage medium. No write traffic fees are incurred for the data transfer.
- If you access files in an IA storage medium, you are charged for the actual read and write traffic. If you read only a part of a file, you are charged for the read traffic that is generated.
- If you run a data retrieval task, you are charged for read traffic based on the size of the retrieved files.
- If you back up files from an IA storage medium, you are charged for read traffic based on the size of the files.
- You are not charged for managing metadata in the IA storage medium. For example, you are not charged for running the ls command to show the metadata of specified files.

How am I charged when I back up files that are stored in an IA storage medium?

If you use Hybrid Backup Recovery (HBR) to back up files that are stored in an IA storage medium of a General-purpose NAS file system, you are charged for using HBR resources. For more information, see Billing methods and billable items.

During the backup process, HBR reads data from the files. Therefore, you are also charged for the traffic that is generated when HBR accesses the IA storage medium. For more information, see Billing of IA storage media.

Am I charged for a data retrieval task?

Yes, you are charged for a data retrieval task. When you run a data retrieval task, the system reads data from the specified file. You are charged for reading the file from the associated IA storage medium based on the size of the file. After a data retrieval task succeeds, the file is moved to the related General-purpose NAS file system and occupies storage space. In this case, you are charged for the storage space based on the size of the file. For more information, see Billing of IA storage media.

Am I charged when I use the recycle bin feature?

No, you are not charged when you use the recycle bin feature. However, you are charged for the used storage of the temporary files in the recycle bin based on the pricing of the original storage type. For example, after you delete a file from a Capacity NAS file system, you are billed for the file based on the unit price of storage in Capacity NAS. After you delete a file from an IA storage medium, you are charged for the file based on the unit price of storage in the IA storage medium. For more information, see Billing of General-purpose NAS file systems and Billing of IA storage media. Am I charged for a file based on the unit price of storage in Capacity NAS before I delete the file from a Capacity NAS file system?

Why are the storage usage records displayed on my bills different from the storage usage records displayed in the console?

After you enable the recycle bin feature for a General-purpose NAS file system, you are billed for the temporary files in the recycle bin.

When you check the storage usage records, you must ensure that the temporary files in the recycle bin are included. Therefore, the storage usage of a General-purpose NAS file system is equal to the storage usage of all files in the file system plus the storage usage of the temporary files in the recycle bin.

Can I change the billing method of an Extreme NAS file system from subscription to pay-as-you-go?

No, you cannot change the billing method of an Extreme NAS file system after you create the file system. After a subscription Extreme NAS file system expires, you can create a pay-as-you-go Extreme NAS file system and migrate data from the subscription file system to the pay-as-you-go file system.

Why can I reduce the storage cost of a file by up to 92% after I dump the file to the IA storage medium?

For example, a Performance NAS file system resides in an Alibaba Cloud region in mainland China. The storage price for the file system is CNY 1.85/GiB /month whereas the storage price for an IA storage medium is CNY 0.15/GiB/month. Therefore, if a file is dumped to the IA storage medium, the storage cost of the file can be reduced by up to 92%.

Statistics indicate that 80% of the data stored in a NAS file system is cold data. For a Performance NAS file system, you can reduce the storage cost to about CNY 0.49/GiB/month after cold data in the file system is dumped to an IA storage medium. For a Capacity NAS file system, you can reduce the storage cost to about CNY 0.19/GiB/month after cold data in the file system is dumped to an IA storage medium.

How are read and write traffic fees calculated for an IA storage medium?

You are billed based on the total amount of read and write traffic per hour when you read data from or write data to the IA storage medium. The amount of read and write traffic is reset to 0 each time an hourly bill is generated. The amount of read and write traffic starts from 0 again for subsequent hours.

If the data in the file system meets the lifecycle management rules, the data is automatically dumped to the IA storage medium. No write traffic fees are incurred for the data transfer. If you access files in an IA storage medium, you are charged for the actual read and write traffic. If you run a data retrieval task, you are charged for read traffic based on the size of the retrieved files. If you back up files from an IA storage medium, you are charged for read traffic based on the size of the files.

When you read data from and write data to a file in an IA storage medium, the read and write traffic is not calculated based on the size of the entire file. Instead, the read and write traffic is calculated based on the actual traffic that is generated. For example, if you read only 1% of data from a file, you are charged only for the 1% of data.

When does a resource plan take effect after I purchase the resource plan? How can I calculate the time at which a resource plan takes effect or becomes ineffective?

A resource plan immediately takes effect after you purchase the resource plan. The resource plan automatically offsets the storage usage fee that is incurred after the purchase.

The resource plan takes effect on the hour and expires at 00:00:00 on the day after the expiration date. For example, you purchased a General-purpose NAS resource plan (10 TiB, one year) at 09:15:00 on August 21, 2019. The resource plan took effect at 09:00:00 on August 21, 2019 and expired at 00:00:00 on August 22, 2020. The last hour for which the resource plan offsets your storage usage fees is from 23:00 to 24:00 on August 21, 2020.

Why do I still have overdue payments after I purchase a resource plan?

After you purchase a storage plan and attach it to a file system, overdue payments may occur due to the following reasons:

• The storage usage of the file system exceeds the capacity of the resource plan.

For example, you have purchased a resource plan (100 GiB, one month) and attached the resource plan to a General-purpose NAS file system named File System A. During a billing cycle, the storage usage of File System A is 180 GiB. The fees for 100 GiB of storage usage are offset by the resource plan. Then, the pay-as-you-go billing method is applied and you have overdue payments for the 80 GiB of excess data. To prevent the overdue payments, you can upgrade the resource plan. For more information, see Upgrade a resource plan.

• The resource plan has expired.

For example, you purchased a resource plan (500 GiB, one month) at 10:39:41 on January 5, 2021, and attached the resource plan to a file system. The resource plan expired at 00:00:00 on February 6, 2021. After the resource plan expires, the pay-as-you-go billing method is applied and then you have overdue payments. To prevent the overdue payments, you can renew the resource plan before it expires. For more information, see Renew a resource plan.

• The lifecycle management feature is enabled and the files that are stored in an IA storage medium are accessed.

If a file meets the rule that is configured in the lifecycle management policy, the file is dumped to an IA storage medium. When you read data from or write data to the IA storage medium, you are charged for the read and write traffic based on the pay-as-you-go billing method. Then, you have overdue payments. For more information, see Billing of IA storage media.

• The billing system has a latency.

After you purchase a storage plan, it immediately takes effect. However, the bill for the previous hour may not be immediately generated due to the latency of the billing system. For example, you receive a bill at 10:00:00 on the current day. The bill may contain the fees that were incurred from 07:00:00 to 09:00:00 on the same day. We recommend that you check the time at which the fees are incurred after you receive the bill.

You can view the usage and fees of your file systems in the User Center. For more information, see View billing and usage details.

Do I need to attach a resource plan to a General-purpose NAS file system to offset the storage usage fee of the file system?

No, you do not need to attach the resource plan to the file system. After you purchase a resource plan for a General-purpose NAS file system, the resource plan automatically offsets the storage usage fee of the file system based on the pay-as-you-go billing method.

How much cost can I save if I purchase a resource plan to offset the storage usage fee of a General-purpose NAS file system?

If you use a resource plan to offset the storage usage fee of a General-purpose NAS file system in an Alibaba Cloud region in mainland China, you can save at least 10% of the storage usage fee that is incurred when the pay-as-you billing method is applied. For more information, see Apsara File Storage NAS pricing.

What are the differences between a General-purpose NAS resource plan and a General-purpose NAS storage plan? Which plan is recommended?

A General-purpose NAS resource plan is a new type of subscription billing method for Apsara File Storage NAS. The resource plan has the following advantages over a storage plan:

- A resource plan can offset the storage usage fees of multiple file systems at a time if the resource plan has sufficient capacity.
- You can use multiple resource plans at a time to offset the storage usage fees of Capacity NAS file systems, Performance NAS file systems, and IA storage media.
- You can purchase multiple NAS resource plans at a time. You can select the same capacity or different storage capacities for the resource plans to offset your storage usage fees as accurately as possible.

• You do not need to attach a General-purpose NAS resource plan to a file system. If you want to add or delete a file system, you do not need to attach the resource plan to or detach it from the file system. The General-purpose NAS resource plan automatically offsets the storage usage fee of your current General-purpose NAS file system.

What do I do after a resource plan expires?

You can renew the resource plan. If you do not renew the resource plan, the pay-as-you-go billing method is automatically applied.

What do I do if the storage usage exceeds the capacity in a resource plan?

You are charged for the excess storage usage based on a pay-as-you-go billing method.

You can use the calculator to view the excess storage usage. If the excess storage usage is large, we recommend that you upgrade your resource plan or purchase another resource plan to offset the storage usage fee. For more information, see Purchase a resource plan and Upgrade a resource plan.

Can I purchase multiple resource plans at a time?

Yes, you can purchase multiple resource plans at a time. You can purchase multiple resource plans at a time for the same storage class of file systems in the same region.

Can I use a resource plan to increase the bandwidth of a file system?

No, you cannot use a resource plan to increase the bandwidth of a file system. The bandwidth of a General-purpose NAS file system increases linearly with the storage usage. A resource plan can offset the storage usage fee, but cannot offset the bandwidth. For more information, see General-purpose NAS file systems.

Can I still use the storage plan that is attached to a file system after I purchase a resource plan?

Yes, you can still use the storage plan. If a storage plan is attached to a file system, the storage capacity of the storage plan is first used to offset the storage usage of the file system. The resource plan is used to offset the excess storage usage.

Can I use a resource plan to offset the storage usage fee of an Extreme NAS file system?

Yes, you can use a resource plan to offset the storage usage fee of an Extreme NAS file system.

Can I apply for a refund after I purchase a resource plan?

Yes, you can apply for a refund if no data is stored in the file system. To apply for a refund, submit a ticket.

Can I use a resource plan to offset the storage usage fee of a subscription Extreme NAS file system?

No, you cannot use a resource plan to offset the storage usage fee of a subscription Extreme NAS file system. However, you can use a resource plan to offset the storage usage fee of a pay-as-you-go Extreme NAS file system.

Why do I need more storage capacity of resource plans to offset the storage usage fee of a Performance NAS file system?

Because different storage classes of NAS file systems have different prices. The storage usage that a resource plan can offset from a file system is calculated based on a specific conversion coefficient. For example, a conversion coefficient of 5.47 is used when the storage usage that a resource plan can offset from a Performance NAS file system in regions in mainland China is calculated. If the storage usage of the Performance NAS file system is 10 GiB, the base capacity of the resource plan is 54.7 GiB.

Why do I still have overdue payments after I purchase a storage plan?

After you purchase a storage plan and attach it to a file system, overdue payments may occur due to the following reasons:

• The storage usage of the file system exceeds the storage capacity of the storage plan.

For example, you have purchased a storage plan (100 GiB, one month) and attached the storage plan to a Performance NAS file system named File System A. During a billing cycle, the storage usage of File System A is 180 GiB. The 100 GiB storage usage are offset first by the storage plan. Then, the pay-as-you-go billing method is applied and you have overdue payments for the 80 GiB of excess data. To prevent the overdue payments, you can upgrade the storage plan. For more information, see Upgrade a storage plan.

• The storage plan expires.

For example, you purchased a storage plan (500 GiB, one month) at 10:39:41 on August 5, 2020, and attached the storage plan to a file system. The storage plan expires at 00:00:00 on September 6, 2020. After the storage plan expires, the pay-as-you-go billing method is applied and then you have overdue payments. To prevent the overdue payments, you can renew the storage plan before it expires. For more information, see Renew a storage plan.

• The lifecycle management feature is enabled and the files that are stored in an IA storage medium are accessed.

If a file meets the rule that is configured in the lifecycle management policy, the file is dumped to an IA storage medium. When you read data from or write data to the IA storage medium, you are billed for the read and write traffic based on the pay-as-you-go billing method. Then, you have overdue payments. For more information, see Billing of IA storage media.

• The billing system has a latency.

After you complete the payment, the storage plan immediately takes effect. However, a bill for the previous hour may not be immediately generated. For example, you receive a bill at 10:00:00. The bill may contain the fees that were incurred from 07:00:00 to 09:00:00. We recommend that you check the time at which the fees are incurred after you receive the bill.

You can view the usage and fees of your file systems in the User Center. For more information, see View billing and usage details.

What is the relationship between a storage plan and the capacity of a file system?

• Storage plan of a file system

Storage plans are used to offset fees only for General-purpose NAS file systems.

Note If you require a storage plan of a higher specification to meet your business requirements, you can upgrade the storage plan. For more information, see Upgrade a storage plan.

• Capacity of a file system

The capacity of a file system is the space that is provided by the file system to store data.

- The maximum capacity of a Performance NAS file system is 1 PiB.
- The maximum capacity of a Capacity NAS file system is 10 PiB.
- You can select the capacity of an Extreme NAS file system when you purchase the file system. The maximum capacity of an Extreme NAS file system is 256 TiB.

To view the storage usage of a file system, perform the following steps:

- i. Log on to the NAS console.
- ii. In the left-side navigation pane, choose File System > File System List.
- iii. Find the file system, and click the ID of the file system in the File System ID/Name column or click Manage in the Actions column. In the Basic Information section of the details page, view the storage usage and the capacity of the file system.

On the details page of a General-purpose NAS file system, the Usage parameter indicates the maximum storage usage of the previous hour.

In Linux, you can run the df -h command to view the storage usage of a file system. If the storage usage is 0, no data is stored in the file system.

Is the capacity of a file system limited to the capacity of a storage plan?

No, a storage plan that is attached to a file system does not limit the capacity of the file system. However, the storage usage of the file system cannot exceed the maximum capacity of the file system. The maximum capacity of a Performance NAS file system is 1 PiB. The maximum capacity of a Capacity NAS file system is 10 PiB. If the storage usage of the file system exceeds the storage capacity of the storage plan, the pay-as-you-go billing method is applied to the excess usage.

For example, you have purchased a storage plan (100 GiB, one month) and attached the storage plan to a Performance NAS file system named File System A. During a billing cycle, the storage usage of File System A is 180 GiB. The fees for 100 GiB of storage usage are offset by the storage plan and you are charged for the 80 GiB of excess storage usage based on the pay-as-you-go billing method.

When does a storage plan take effect?

A storage plan immediately takes effect after you complete the payment for the storage plan.

What can I do after a storage plan expires?

You can renew the storage plan. If you do not renew the storage plan, the pay-as-you-go billing method is applied. You can also purchase a resource plan after the storage plan expires. You can use the resource plan to offset the storage usage fee of a NAS file system without the need to attach the resource plan to the file system. For more information, see Purchase a resource plan.

What happens if the storage usage of a file system exceeds the storage capacity of a storage plan?

If the storage usage of the file system exceeds the storage capacity of the storage plan, the pay-asyou-go billing method is applied to the excess usage.

For example, you have created a Capacity NAS file system and attached a storage plan (500 GiB, one month) to the file system. The maximum storage usage of the file system is 550 GiB from 07:00:00 to 08:00:00 on August 1, 2020. The fees for 500 GiB of storage usage are offset by the storage plan and the pay-as-you-go billing method is applied to the 50 GiB of excess usage.

Can I purchase a storage plan if I do not attach it to a file system?

No, you cannot purchase a storage plan if you do not attach it to a file system. When you purchase a storage plan, you must attach it to a file system. You can attach each storage plan to only one file system. If you require a storage plan of a higher specification or longer duration, you can upgrade or renew the storage plan. For more information, see Upgrade a storage plan and Renew a storage plan.

How can I detach a storage plan from a file system?

You cannot manually detach the storage plan from the file system. However, if you delete the file system, the storage plan is automatically detached.

How can I change the file system to which a storage plan is attached?

You must delete the file system to detach the storage plan and then attach the storage plan to another file system.

Can I apply for a refund after I purchase a storage plan?

Yes, you can apply for a refund if no data is stored in the file system to which the storage plan is attached. In this case, submit a ticket.

Can I attach a storage plan to an Extreme NAS file system?

No, you cannot attach a storage plan to an Extreme NAS file system. You can attach a storage plan only to a General-purpose NAS file system to offset fees for the file system. For more information about the billing of Extreme NAS file systems, see Billing of Extreme NAS file systems.

How can I view the expiration time of a storage plan?

You can view the basic information of the storage plan in the **Storage Package** section on the details page of the file system to which the storage plan is attached. The basic information includes the ID, capacity, start time, and expiration time of the storage plan.

Can I attach multiple storage plans to a file system?

No, you cannot attach multiple storage plans to a file system. You can attach only one storage plan to each file system. When you create a storage plan, you must attach it to a file system. You can attach each storage plan to only one file system. If you require a storage plan of a higher specification or longer duration, you can upgrade or renew the storage plan. For more information, see Upgrade a storage plan and Renew a storage plan.

How can I check whether I have overdue payments?

You can check whet her you have overdue payments in the **User Center** console. If you have overdue payments, you can no longer use your NAS file systems.

- 1. Log on to the Alibaba Cloud Management Console.
- 2. In the top navigation bar, click Expenses, and then go to the User Center console.
- 3. In the left-side navigation pane, click **Bill**. On the page that appears, the overdue payments are displayed.

If you have overdue payments, we recommend that you add funds to your account at your earliest opportunity.