



Configure the metadata cache for SMB shares

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Configure the metadata cache for SMB shares

How SMB metadata caching works

Metadata caching enables file attribute caching on SMB 1.0 clients to provide faster access to file and folder attributes. You can enable or disable attribute caching on a per-share basis. You can also configure the time-to-live for cached entries if metadata caching is enabled. Configuring metadata caching is not necessary if clients are connecting to shares over SMB 2.x or SMB 3.0.

When enabled, the SMB metadata cache stores path and file attribute data for a limited amount of time. This can improve SMB performance for SMB 1.0 clients with common workloads.

For certain tasks, SMB creates a significant amount of traffic that can include multiple identical queries for path and file metadata. You can reduce the number of redundant queries and improve performance for SMB 1.0 clients by using SMB metadata caching to fetch information from the cache instead.



While unlikely, it is possible that the metadata cache might serve stale information to SMB 1.0 clients. If your environment cannot afford this risk, you should not enable this feature.

Enable the SMB metadata cache

You can improve SMB performance for SMB 1.0 clients by enabling the SMB metadata cache. By default, SMB metadata caching is disabled.

Step

1. Perform the desired action:

| If you want to... | Enter the command... |
|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Enable SMB metadata caching when you create a share | <code>vserver cifs share create -vserver <i>vserver_name</i> -share-name <i>share_name</i> -path <i>path</i> -share-properties attributecache</code> |
| Enable SMB metadata caching on an existing share | <code>vserver cifs share properties add -vserver <i>vserver_name</i> -share-name <i>share_name</i> -share-properties attributecache</code> |

Related information

- [Configuring the lifetime of SMB metadata cache entries](#)
- [Adding or removing share properties on an existing SMB share](#)

Configure the lifetime of SMB metadata cache entries

You can configure the lifetime of SMB metadata cache entries to optimize the SMB metadata cache performance in your environment. The default is 10 seconds.

Before you begin

You must have enabled the SMB metadata cache feature. If SMB metadata caching is not enabled, the SMB cache TTL setting is not used.

Step

- 1. Perform the desired action:

| If you want to configure the lifetime of SMB metadata cache entries when you... | Enter the command... |
|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Create a share | <code>vserver cifs share -create -vserver <i>vserver_name</i> -share-name <i>share_name</i> -path <i>path</i> -attribute-cache-ttl [<i>integerh</i>] [<i>integerm</i>] [<i>integers</i>]</code> |
| Modify an existing share | <code>vserver cifs share -modify -vserver <i>vserver_name</i> -share-name <i>share_name</i> -attribute-cache-ttl [<i>integerh</i>] [<i>integerm</i>] [<i>integers</i>]</code> |

You can specify additional share configuration options and properties when you create or modify shares. See the man pages for more information.

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