How much space does VSS need to create and maintain a snapshot?

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Symptom

How much space is required for the VSS Snapshot on a Windows host?
My drive is more than 1 GB free. I set MS Shadow Copy to use no more than 500 MB.

I have this error during backup:

```
AGENT: Closing connection: Backup Failed (void \__thiscall BackupRequest::execute(void):-)
AGENT: Error during the last asynchronous operation (0x8004231f): VSS_E_INSUFFICIENT_STORAGE \
    (void \__thiscall VssClient::WaitAndCheckForAsyncOperation
```

Cause

The size of the snapshot made by the Volume Shadow Copy service (a function of Microsoft Windows that we utilize in our product, but is not part of our product) is determined by the size of the volume and how much data has changed since the last snapshot was made. This could be anywhere from a few hundred Megabytes, to tens of Gigabytes on a really busy server.

Limiting the Shadow Copy service to 500 MB does not mean that the Shadow Copy has to do all its work within that limit, because the snapshot is going to be as large as it has to be. You are essentially setting a quota, and when it reaches that quota and the snapshot is not finished, it fails with the error that we are seeing. That error doesn't tell us how much space was needed vs. how much space was available, so all we really know is that it requires more space than what is available.

Resolution

There is no way to tell how much space a shadow copy will use before it is made. If you deleted some existing snapshots the other day, it may have freed up enough space to get a successful backup or two.

The Shadow Copy should not be quite as large as the CDP Server snapshot because there is some overhead in our map files, etc.

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