

Overall Performance



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Individual Responses

▼ Question 1: Correct

You are the network administrator for Corpnet.com. You have a file server named File1 that runs Windows Server. File1 is running low on disk space. You determine that a significant percentage of the data on File1 consists of duplicate files. You would like to remove duplicate data to free up space on File1. You do not want the solution to impact the users' ability to access duplicate data.

What should you do?

- ☒ Install and configure the Data Deduplication Role service.
- ☐ Create a new storage space and implement thin provisioning.
- ☐ Install and configure the File Server Resource Manager (FSRM) Role service.
- ☐ Implement active file screens.

Explanation

You should install and configure the Data Deduplication Role service.

Data Deduplication involves finding and removing duplication within data without compromising its fidelity or integrity. Essentially, it removes duplicate data from the hard drive and replaces the actual duplicated data with pointers to the single copy of the data. Users should not experience any delay or even be aware of the change. Once you have installed the Data Deduplication Role service, you can manage it through Server Manager using the File and Storage Services node. There you can schedule when Data Deduplication will run and define any folders or volumes that should be exempt.

Note: Data Deduplication is not supported for the System or Boot partitions, and will only work on NTFS volumes. Windows Server 2012 R2 is supported on volumes formatted with the ReFS file system; previous versions of Windows Server are not.

Thin provisioning allows you to provision a storage space at a higher capacity than the physical storage currently available. This allows more physical space to be added later without having to adjust the storage space. You must make sure the clients do not consume more space than is physically available, or the storage space will experience an outage.

The File Server Resource Manager (FSRM) Role service can be used for a number of purposes, including producing storage reports that can identify large files, rarely used files, and duplicate files. It can also be used to allow you to implement file screens. File screens allow administrators to block certain types of files from being uploaded to servers. An active file screen prevents the file from being saved, while a passive file screen allows the file to be saved but logs an event to alert the administrator.

References

LabSim for Server Pro 2016, Section 5.5.
[AllQuestions_ServerPro_2017.exm DATA DEDUP 01]

▼ Question 2: Incorrect

You are the network administrator for Corpnet.com. You have a file server named File1 that runs Windows Server. File1 is running low on disk space.

You need to determine whether this volume should have deduplication enabled.

Which of the following conditions would make File1 a good candidate for deduplication? (Select two.)



- ☐ File1 contains shared folders with user documents that are modified infrequently.
- ☐ File1 contains files that change often.
- ☐ File1 contains system files.
- ➔ ☒ File1 contains virtual hard disk file storage for provisioning to hypervisors.
- ☒ ~~File1 contains files that are constantly accessed by users.~~

Explanation

Volumes that contain user documents, virtual files, or software deployment files that contain data that is modified infrequently and read frequently are good candidates for deduplication.

Volumes that contain files that change often and are constantly accessed by users or applications are not good candidates. Boot volumes and system volumes do not support deduplication.

References

LabSim for Server Pro 2016, Section 5.5.
[AllQuestions_ServerPro_2017.exm DATA DEDUP 02]

▼ Question 3: Incorrect

Data deduplication has three schedules configured by default. The optimization process runs every hour by default.

Which of the following deduplication processes run once per week by default? (Select two.)

- ☒ ~~Corruption logging~~
- ➔ ☐ Garbage collection
- ☐ Corruption fixing
- ➔ ☒ Scrubbing
- ☐ Chunk mirroring

Explanation

Data deduplication has three schedules configured by default. Optimization runs every hour, while Garbage Collection and Scrubbing run once a week.

Data deduplication records corruption in a log file and mirrors chunks to be used when a chunk gets corrupted and needs to be fixed as part of its normal function.

References

LabSim for Server Pro 2016, Section 5.5.
[AllQuestions_ServerPro_2017.exm DATA DEDUP 03]

▼ Question 4: Incorrect

You need to enable data deduplication on your server's data volume. You add the Data Deduplication role service and then use the DDPEval.exe utility to analyze server volumes for data deduplication.

Now you need to use Server Manager to configure data deduplication on the data volume.

Which of the following steps are part of the configuration process? (Select three.)

- ☐ Specify the amount of built-in redundancy to be used for critical metadata.
- ➔ ☒ Specify the extensions of any file types that should not be deduplicated.
- ☐ Enable the garbage collection schedule.
- ☒ ~~Enable the scrubbing schedule.~~
- ➔ ☒ Specify the number of days that should elapse from the date of file creation until files are deduplicated.

☐ Specify the degree of optimization that should be enforced.

➡ ☐ Enable data deduplication.

Explanation

Using Server Manager, you configure data deduplication on a server data volume by completing the following:

- Select **Enable data deduplication**.
- Specify the number of days that should elapse from the date of file creation until files are deduplicated.
- Specify the extensions of any file types that should not be deduplicated.
- If necessary, manually specify any folders with files that should not be deduplicated.
- Configure the deduplication schedule.
- Apply the changes.

The scrubbing and garbage collection schedules can be changed, but they do not need to be enabled. Data deduplication will run optimization every hour, but the degree of optimization is not a configurable setting. Data deduplication also provides built-in redundancy for critical metadata and frequently-used data chunks, but there are no configurable settings for this functionality.

References

LabSim for Server Pro 2016, Section 5.5.

[AllQuestions_ServerPro_2017.exm DATA DEDUP 04]

▼ Question 5: Incorrect

Data deduplication finds and removes duplicate information across files without compromising data integrity. The data deduplication optimization process uses a four-step process.

Use the left/right arrow buttons to move the steps that are part of the data deduplication optimization process from the list on the left to the list on the right. Use the up/down arrows to put the steps into the correct order on the right.

Files are segmented into 32–128 KB chunks.
Duplicate chunks are identified. ~~Mirrored-c~~
One copy of each chunk is saved. ✓
Chunks are compressed and organized. bla

Explanation

The data deduplication optimization process is as follows:

1. Files are segmented into small variable-sized chunks that are 32–128 KB in size.
2. Duplicate chunks are identified.
3. A single copy of each chunk is then maintained. Redundant copies of the chunk are replaced with a reference to the single copy.
4. The chunks are compressed and then organized into special container files in the System Volume Information folder.

The following tasks are part of the scrubbing process:

- Corrupted chunks are fixed.
- Chunks are backed up for reference.
- Corrupted chunks are eliminated.
- Mirrored chunks replace corrupted chunks.

References

LabSim for Server Pro 2016, Section 5.5.

[AllQuestions_ServerPro_2017.exm DATA DEDUP 05]