

EXCHANGE 2003 TIPS

Tip #2: Database Defragmentation

Exchange Databases: To Defrag or Not to Defrag?

Courtesy of Jay Paul Gundotra, Principal Architect, ENow, inc.

Whether 'tis nobler in the datacenter to recover white space with an offline defrag, or to avoid the downtime inherent in taking a database offline....

To defrag, perchance to shrink a database. Ay, there's the rub; for during that defrag, the database is unavailable.

Just as Hamlet wrestled with the choice of action versus non-action, so too are Exchange admins almost equally divided on the subject of offline defrags.

An Exchange database will process thousands of transactions every day. These transactions 'fragment' the database, and over time a fragmented database will suffer performance degradation.

An online defrag will reorder Exchange transactions to minimize performance degradation, but the process will not shrink the database; you will be left with a quantity of 'white space.'

Herein lies your quandary: Generally accepted best practices recommend maximum database sizes of 15GB to 25GB (refer to 'Exchange Tip #1: Managing Database Size' for more on this topic); but a database will never shrink unless it is defragmented offline.

So - to defrag, or not to defrag?

If you need to defrag (perhaps because Exchange is running out of disk space), you first need to calculate each database's white space to ensure the operation is worth the effort. (You can calculate white space manually by searching for Event ID 1221 in the application log on your Exchange server.) The offline defrag will recover storage space and improve performance, but it will cause downtime and also poses a small risk of data loss (so be sure to back up a database before defragging it!).

About ENow, inc.

ENow is a Microsoft Gold Certified Partner specializing in high-end Exchange consulting and the development of software to simplify Exchange system management. The company's flagship product is an innovative utility called Mailscape that provides administrators with a 'one-look dashboard view' of the entire Exchange environment. ENow is headquartered in Orange, California, and is proudly represented by a world-wide network of resellers and distributors.



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Exchange Databases: To Defrag or Not to Defrag? (*Continued*)

If you prefer to minimize downtime at any cost but still wish to minimize backup and restore times by keeping your databases at optimal size, then your best option is to create a new database and move mailboxes into it after hours as conditions warrant. Your downtime will be minimal, but moving mailboxes can be time consuming and may require you to reconfigure your mobile users. In addition, you must remember to change your backup policy to include the new database.

Whether to defrag or not to defrag has no right or wrong answer; it is a matter of preference and your organization's standard operational procedures. But if you know the benefits and risks of each, you can recommend the correct strategy for your environment.