

Exchange Server Standard Maintenance Checklist

By *Brien Posey*, SearchExchange.com Contributor

Brien M. Posey, MVP and technology consultant, provides this standard maintenance checklist to help you keep your Exchange servers running like well-oiled machines.

Keep Windows up to date

One of the most important tasks in maintaining your Exchange organization is keeping the Windows operating system up to date. After all, Exchange Server is completely dependent on Windows. If a security weakness or software bug exists in Windows, there's a good chance it will affect Exchange on some level as well.

Microsoft routinely releases patches for Windows that correct new bugs and security holes that have been discovered. Fortunately, you don't have to constantly search the Web for the latest updates. Windows Server 2003 contains a feature called [Windows Update](#), which allows you to check for the latest patches and install them automatically.

If you are depending on Windows Update for your software updates, I recommend scanning for new ones at least three times per week. However, there are also many third-party applications available that automate the patch management process.

Keep Exchange up to date

Some administrators don't realize that Windows Update does not check for Exchange Server patches. The easiest way to check for any Exchange updates is to run the [Microsoft Baseline Security Analyzer](#).

Microsoft also has another free tool called the [Microsoft Exchange Best Practices Analyzer](#), which checks to make sure that your server is running an optimal configuration, and that there are no potential problems on the horizon. Although this tool isn't technically designed to help you to download software updates, I recommend taking the time to run it once per week.

Monitor disk space consumption

As you are no doubt aware, Exchange Server is hungry for disk space. If Exchange runs out of disk space, the Information Store will shut down, leaving you with no e-mail. It is therefore extremely important to keep tabs on the amount of free disk space on the server. You not only want to monitor the volumes containing the Exchange databases, but also those volumes containing transaction logs.

Keep in mind that while running out of disk space is a big problem, letting the Exchange databases get too large is an even bigger problem. Exchange Server 2003 Enterprise Edition doesn't impose an Information Store size limit, but all other versions of Exchange have a 16 GB limit. If the Information Store reaches the 16 GB threshold, the repair process is very messy, so it's important to keep tabs on things so that ceiling is never reached.

□ **Monitor hardware utilization**

Monitoring the way Exchange is utilizing your server's hardware isn't something you need to do every day, but it is important to do once in a while. As your user base grows, you may find that your server's CPU becomes overworked and that available memory starts to dwindle. So run [Performance Monitor](#) about once a month to compare the current hardware utilization against the previous month's recorded utilization. This will allow you to spot trends over the long term, so you can upgrade your server hardware before major performance problems arise.

□ **Monitor and document license usage**

What would you do if the [Software & Information Industry Association \(SIIA\)](#) visited your office tomorrow and performed a software license audit? If you aren't prepared for such an audit, the fines alone could be enough to drive your company out of business.

It is extremely important to keep accurate records of the number of employees who access your Exchange organization. You must ensure that you have enough Windows Client Access Licenses, Exchange Client Access Licenses, Windows XP Licenses, and Microsoft Outlook Licenses to accommodate the number of people who are accessing your Exchange server. Hopefully, you have an asset management program that tracks software license compliance. If not, you should be updating your records every time you create or remove a mailbox.

□ **Perform regular backups**

Obviously, it's important to back up your Information Store in case your server ever crashes. Exchange backups are important for another reason though. When Exchange receives a message, the message is not written directly to the Information Store, but rather to a transaction log. Running an online backup forces the contents of the transaction logs to be committed to the Information Store. If you don't regularly back up your Exchange server, the transaction logs can continue to grow until your server runs out of disk space.

□ **Defragment the databases**

As messages are created and deleted, the Information Store becomes fragmented. Exchange 2000 and 2003 perform automated defragmentation of the databases to help reduce the effects of fragmentation. The problem with this automatic defragmentation is that free space within the database is never released. The only way to release the free space (and decrease the database's size) is to perform an offline defragmentation. To do so, you will need to take the Information Store offline and run the **ESEUTIL** program with the **/D** switch.

The volume containing the Information Store must have at least the size of the database that you are defragmenting, plus 10% in free space. Therefore, if you had a 1 GB database, an offline defragmentation would require 1.1 GB of free disk space. The disk space will be returned to you after the defragmentation is complete, but is needed as temporary work space. I recommend performing an offline defragmentation once every one to two months.

□ **Schedule periodic reboots**

Just as a database can become fragmented, so can the server's memory. The easiest way to get rid of the fragmentation is to reboot the server. If your corporation's server availability policy will allow it, I recommend rebooting your Exchange server about once a month.

□ **Let MOM help**

As you can see, there are lots of things that you can do to maintain a healthy Exchange environment. One of the best things you can do though is run [Microsoft Operations Manager \(MOM\)](#). Although MOM can be a little pricy, it monitors thousands of aspects related to Windows and Exchange. If an issue is encountered, MOM takes corrective action or alerts you to the issue before it has a chance to become a problem. In my opinion, MOM is the ultimate maintenance tool.

Brien M. Posey, MCSE

Brien is a Microsoft Most Valuable Professional for his work with Windows 2000 Server and IIS. He has served as CIO for a nationwide chain of hospitals and was once in charge of IT security for Fort Knox. As a freelance technical writer, he has written for Microsoft, TechTarget, CNET, ZDNet, MSD2D, Relevant Technologies and other technology companies.

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