

# Mailbox Size Management

## A guide to control in Exchange and Outlook

### Overview: The inevitable growth of e-mail

It comes as no surprise to any e-mail administrator that most Exchange messaging systems are growing, and doing so at an exponential rate. The Ferris Research group suggests that e-mail usage is growing in excess of 40% per annum. While the e-mail administrator must cater for the ever-increasing demands on Exchange resources, users are expecting high standards of service to support their dependence on the Exchange Information Store.

E-mail system growth is a result of two simultaneous factors:

- users are sending and receiving more e-mails
- the average size of e-mails is increasing.

A comprehensive strategy is required to help organizations to tackle both increasing numbers of e-mail messages and also gain control over the size of individual e-mail messages. We call this a Mailbox Size Management Strategy.

### The costs of increasing e-mail sizes

While users are keen to increase their use of e-mail, the negative effects can be very evident to them. The effects of larger e-mails on users are

- Increase in the time taken to send
- Increase in the time taken to receive, especially for remote users or users on poor bandwidth connections
- Creation of bottlenecks in inter server traffic, creating delays in message transfer
- Reduction in the performance of the Exchange system
- Unacceptable increase in system restore times

All of these points lead to an increased cost in maintaining the Exchange system and a drop in productivity for anyone using it.

## Reducing average e-mail size (Reducing e-mail size for desktop user)

The growth of each e-mail is coming not from more being typed into the body text, but from more and larger attachments being added to each e-mail. Studies undertaken by C2C Systems suggest that a saving of 30-40% in average message size can be achieved if compression technologies are applied to e-mail systems.

The effects of reducing the size of each e-mail are

- The messaging system becomes faster
- Users achieve higher productivity in the office environment
- Remote workers' messaging experience is greatly increased, as they are often on poorer bandwidth
- The Exchange server restore window drastically reduces
- The Exchange server lifetime is prolonged through more efficient use of its resources.

### Invisibility; who has the responsibility to control size?

Most organizations provide users with a compression utility on the desktop, and so put the duty with the user to zip some or all e-mails before sending and unzip them when opening. However, expecting a business user to do something time-consuming, and without obvious benefit to themselves, often results in them ignoring the task. C2C would argue that size management is an administrator issue, and that the end-user's responsibility for zipping and unzipping files should be reduced or even eliminated.

It is therefore up to the administrator to find a solution, which carries the least overhead for the end-user. The benefits of compression are obvious to many administrators, however the difficulties in achieving it are often a surprise to organisations. C2C Systems is the manufacturer of the world's number one automated compression suite for Microsoft Exchange, fully integrated into Outlook. The MaX Compression Suite of applications applies industry standard compression techniques to Exchange systems. MaX Compression technologies are controlled and deployed centrally and users are not even aware that compression, or equally critically, decompression is taking place.



## All access points covered

One of the major reasons for many organizations to upgrade to Exchange 2000 was the availability of Outlook Web Access, a much-improved web client. This gave companies the ability to have an 'office without walls', encouraged remote e-mail access and reduced deployment costs for the Exchange client. However in doing so, many clients that implemented OWA found themselves on poorer bandwidth connections. Compression is an obvious way to improve this situation. MaX Compression for OWA Client ensures that all traffic between the Exchange servers and the OWA client is compressed, and that the user is totally unaware of this occurring.

When considering a central strategy, not only should all access points to the Exchange system be able to seamlessly compress and decompress all attachments, but also historical information should be considered. This means that the benefits in reduced bandwidth extend to maximise the storage space available.

## Conclusion: Compression for Messaging / making Exchange faster

The first element of C2C's Mailbox Size Management Strategy is to reduce the size of each e-mail so that it takes up as little system resource as possible. Return on Investment is a key guide to success, and research has found Exchange users benefiting from a 36:1 return just from implementing compression (Giga Information Group). It is crucial that the strategy is specifically designed for Exchange messaging systems and allows for centralised control and transparency for the end user.



## Managing the growth of messaging systems

For a fully effective Mailbox Size Management Strategy to be put in place, a second element, capacity management, has to be considered.

All trends show growth in messaging systems is expected to continue, even accelerate, so a plan to reduce the number of e-mails in an organization would be futile. As messaging volumes are bound to grow, controlled growth requires this second element of our strategy.

### As Exchange stores become larger

As Exchange systems begin to store more and more items, they:

- become slower – making users' productivity decrease
- vastly increase the Exchange servers restore time

In the past it was viewed that keeping items in Exchange was expensive and should be avoided whenever possible. E-mails and many other forms of electronic data were believed to be of lower value than printed documents, and their value dropped considerably with time. However changes in technology and strategy have meant that

- The value of e-mail information has risen considerably both in legal and business intelligence costs as e-mail becomes the most widespread medium of business communication.
- Hardware costs have dropped, so larger storage 'farms' are both more reliable and economical
- Microsoft has declared that the Exchange Information store is to be the main store of business information in the enterprise

Moving information from Exchange to another technology for storage merely moves the problem to another location and at the same time imposes new working practices on end-users. As with e-mail compression, transparency to the end-user is important, and this second part of C2C's Mail Box Size Management Strategy believes that the increase in number of e-mails stored should be managed as close to the problem as possible, and not removed from Exchange. Removing information from Exchange has already proven to present its own set of problems.

In addition to this, a single technology solution will allow the greatest future-proofing for your messaging system. This permits growth in the future without the constraint of supporting e-mails that are external to Exchange.



## The PST Experiment

One example of how ineffective moving information out of the Exchange system can be, is the use of Personal Store files (PST's). These files are part of Outlook and were often used to give each user unlimited storage on their personal storage areas, while keeping the central Exchange server free of excessive information. However, removing information from the Exchange system into PST files has shown itself to be of short-term benefit only and has gone on to cause many problems for Exchange administrators

- Legally. They can no longer find any information easily as it is difficult to locate all the instances of the PST files and even more complex to then search for the information they contain.
- Technically. PST files are simply not as reliable or reliably supported as the Exchange information store. For example, there is a well known 2 GIG limit to PST files. No warning is given that a file is close to this limit, but on exceeding it, the contents corrupt.

Most of the current debate on PST's concerns their use in the longer term and the restoration of e-mail information to the Exchange system so that organizations have legal and technical control over the valuable data they contain. The PST 'Experiment' has highlighted to many organizations the value of the information stored within Exchange and this value has to be included in storage decisions.

## Managing growth

Given past experiences with PST folders, why would an organization choose to move information from the Exchange system, when it is the most efficient storage location for e-mail information? C2C's Archive One is a tool that helps organizations manage the growth of the Exchange system by creating specific roles for Exchange servers. This allows primary servers to move messages between users and store only current information (message transfer servers) and secondary servers to act as storage points with far greater storage capacity.

By declaring that servers will concentrate on roles, resources can be deployed to ensure that a storage server has the resources and backing to allow it to grow, while the message transfer servers are most efficient in their task.

Microsoft has shown its belief in using Exchange as the main information repository, building Sharepoint on it. C2C has followed the same strategic approach and remains dedicated to this continuing role of Exchange.



## Total Cost of Ownership

As with compressing individual messages, it is imperative that the capacity management solution takes account of the organization's messaging environment. Any system that impacts on the way a user works, ie requires training, or has large deployment costs means that much of the benefit of the solution has to be offset against the cost of implementation. An end user should not be concerned with capacity management; decisions on the model selected should be made by the IT department in line with Return on Investment objectives. Some organizations have adopted solutions to the capacity problem that have been adapted from other storage management or archiving solutions. These systems invariably require information to be removed from the Exchange system and also impact the way a user operates. C2C's approach is based on minimal impact:

- Impact on users should be zero
- Deployment is centralized and not require user software
- Decisions about capacity management are created and managed centrally.

## Conclusion

In allowing growth to occur according to a controlled Size Management strategy, the Exchange system is better placed to deliver the demands placed on it by business and users:

- Become the main repository of business information
- Allow users unlimited storage
- Adhere to strict and achievable server restoration times.

This is to the obvious benefit of the end-user, while the growth of the system is kept within the control of the Exchange administrators.

A strategy for mailbox size management is therefore an adaptable solution that helps the administrator to resolve the issues by first tackling their most pressing need, followed by other logical steps to alleviate other problems caused by increased mail usage and mail size. Applications from C2C to help them manage these issues include:

MaX Compression Suite  
Archive One



## References:

<http://www.theregister.co.uk/content/8/18099.html>

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<http://www.ferris.com>

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