



8 Steps to PST Elimination

White Paper

Summary

When you are planning a corporate compliance and litigation readiness plan, no single set of data seems to present more challenges than the PST file.

Microsoft Outlook PST files can be generated for a number of reasons: They can circumvent mailbox quotas or used as a method to organize older email data. Some are even created to ease the handover of data from one employee to another. But regardless of the reason they have been created, PST files can be a major headache for IT teams.

This white paper provides an eight-step action plan to eliminate PST files, as well as how to integrate the data contained within them into an overall corporate retention policy that provides assured data protection, corporate compliance, and litigation readiness.

The Challenges of PST Files

PST files are created by the Microsoft Outlook desktop client and are used to store local copies of email messages, calendar events, contacts, task lists, and other similar items. PST is an acronym for "Personal Storage Table," but they are more commonly referred to as an Outlook archive or as a personal archive file.

Each PST file is a container that comprises a folder structure and a number of individual items. Emails and attachments are often quite large, and as some PST files will contain many thousands of items, these files can sometimes grow to a size of several GB each.

How are they used?

Many PST files are created by the "Auto Archive" function in Outlook, which automatically removes older messages and data from Exchange and archives these locally in a PST file. This feature was enabled by default in Outlook 2003 and Outlook 2007.

PST files are also used when email needs to be moved from one place to another, such as when migrating between mail servers, or when an organization needs to retain a separate copy of email data (such as when an employee leaves an organization). They are also quite widely used simply as a convenient way for end users to store and organize their older email data.

Why are they a problem?

The PST file is not a robust file format and is not designed for reliable long-term storage of large amounts of data. These files can grow to an excessive size, which makes them particularly liable to corruption, especially if they are accessed over a network.

When they reside on laptops and workstations, they are typically not backed up, so they will present a challenge if they are corrupted or inadvertently deleted and need to be recovered. The time taken in resolving issues with PST files can be a significant drain on resources for IT administrators.

Finally, when PST data is included in an electronic discovery request, companies find they are difficult to locate and restore, and also present an unnecessary risk.

Are they still needed?

With the release of Exchange 2010, Microsoft recognized the problems these files caused and introduced enhancements to eliminate the need for users to have separate local archive storage. Exchange 2010 allows for larger mailboxes and secondary mailboxes where additional data can

be archived, and Exchange 2013 expands on this capability. However, it is still possible for users to create and work with these files even in the latest versions of Outlook.

Administrators can disable the ability to use them, but many organizations will still have a large number of PST files in existence. These files usually contain valuable business; therefore, the data needs to be managed carefully and effectively.

Reasons for Eliminating PST Files

There are a number of major IT projects where PST files can represent significant roadblocks. These include virtual desktop (VDI) and bring your own device (BYOD) implementations, as well as migration to a cloud service such as Office 365. In these situations, data stored in PST files may need to be extracted and migrated elsewhere since the IT project can render these files inaccessible.

When an organization is implementing email archiving, whether they are using In-Place Archiving in Exchange or Office, or adopting a third-party archiving solution, this is an ideal opportunity to eliminate PST files and eliminate the overheads they cause.

Finally, companies that are implementing information management and retention policies to meet compliance requirements will need to include data within PST files to ensure their strategy is complete and legally defensible.

The 8 Steps to PST Elimination

Our eight-step plan has been adopted by many of our customers, who were successful in eliminating PST files. The benefits they have realized include effective storage management, happier end users with fewer support calls and significantly lower costs when historical email data needed to be found and produced.

Step 1 - Create Your Project Plan

The first step is to put in place a strategic execution plan for your project. This should cover where existing data will be moved to, how it will be moved, when it will be moved, and how much it will cost.

Where do you want to store the data from existing PST files, and how much of it do you need to keep? You could move it back into Exchange or into an archive such as Barracuda's Message Archiver, or you can move it to network or cloud storage. Are there any limits that might restrict the migration of PST data to this new location, and are there any cost implications if it means you need to expand your existing resources?

If you are moving to cloud storage or a cloud-based archive, make sure you understand all the upload and storage costs in advance. If you are migrating to Exchange, you may not want to put all your old PST file data into the new server as it may significantly increase your storage requirements, particularly if you follow the Microsoft recommendations for DAGs.

How do you want to operate the PST migration and elimination process? You can use your IT team to undertake the project on a desktop-by-desktop basis, or you can request that end users perform some of the clean-up themselves with IT overseeing the process.

Software solutions can make the process much quicker and easier, but choose one that will automate all aspects of the process. For example, Microsoft's PST Capture Tool will migrate data

from PST files, but it cannot help with locating each file and deleting them after the contents have been migrated.

When will you migrate your PST files? Given all of the factors above, identify the end to end timescale of your PST elimination project. Outline the process for discovering PST files and uploading the data, then archive the data or ingest the data to Exchange if that is your planned path. Be sure to identify a reasonable timescale without overloading the system, network, or staff resources.

How much will it cost? Finally, you need to develop a budget for your PST elimination project. The information you have just gathered will give you a rough idea of a realistic budget, but you won't have detailed information on exact numbers until you perform the next step. You may wish to estimate the total volume of PSTs you anticipate discovering, and you should consider the cost implications of using an automated tool versus a fully manual process.

Step 2 - Locate Your PST Files

The next step is to discover how many PST files you have in your organization and where they are currently located. PST files can hide in many locations, from file servers and client desktops to laptops and company servers where data from former employees is likely to be found. This information is vital for assessing the size of your project, and ensuring that you provision the right amount of storage capacity in the right locations.

The idea is to obtain a complete report that identifies exactly how many PST files currently exist across the organization that details their size, location, message counts and ownership. However, it may not be feasible to provide a complete report at this stage, so many organizations will instead work from a representative sample.

Step 3 - Identify Corporate Retention Policies

Your organization may already have corporate data retention policies in place. These will mandate the deletion of data once it passes a specified age; however, it is common that these policies will not have been followed for PST files. At this point, you should identify all relevant retention policies so that you can apply them during your PST elimination project.

If your organization doesn't have a corporate retention policy, this may be a good time to establish one. Work with your corporate counsel to determine what timeframe is appropriate for your business and industry, and then apply it consistently across the entire span of data in your project.

A PST is a container file, so it is not appropriate to apply retention policies to the file as a whole. Each PST must be opened so that retention policies can be applied individually to each email contained in it. If you apply retention policies before the data is migrated, you will be able to delete unwanted data before it is moved, which will reduce the size of your project as well as saving on storage costs.

Step 4 - Identify Requirements for Legal Hold

Check with your organization's legal and human resources organizations to understand if there are any legal hold or other data retention requirements in place that need to be taken into account. There may be some specific sets of data (such as financial data or executive data) that must be retained indefinitely, and there may also be existing investigations or eDiscovery projects already underway that need to be taken into consideration.

Data associated with these legal hold requirements must be flagged so that it is not removed or deleted during your PST elimination project, or your company may be liable for sanctions.

Step 5 - Finalize Your Project Plan

Now that you have a comprehensive understanding of the scale and complexity of your PST elimination project, revisit your project plan to see if it is feasible, and make adjustments as needed. You should confirm your estimates for system resources, costs, and timescales based on the full assessment of your organization-wide PST file data before you finalize the plan. At this stage you can also finalize the budget for your project.

Step 6 - Establish Ownership for Orphaned PST Files

PST files can often become de-coupled or orphaned from their original owner's Outlook application. While this occurs most commonly when an employee leaves an organization, it can also happen when they change roles or make changes to their email setup.

It is important to determine an owner for each PST file, otherwise you will not know who owns the data contained in the file and where it should be migrated to. You will also not know which retention policies apply and whether there is an active legal hold in place that covers data in the file.

Finding orphaned PST files and pairing them back with their respective owners can be a time-consuming manual task, but some IT solutions can automate this process.

Step 7 - Migrate PST Content to the Chosen Location

Once you have located all your PST files, identify who owns each file and decide which retention policies should be applied before you begin the actual migration process.

It is recommended that you take a phased approach to your migration and break it down into a number of consecutive stages, each covering (for instance) a particular team or location, rather than attempting to migrate all PST files within your organization at the same time. This will help you to manage the overall process more carefully, as well as enabling you to evaluate the results and make any adjustments needed based on this experience before you migrate the next phase.

You should also schedule the migration to occur during non-peak network hours, since it is likely to generate a considerable amount of extra network traffic, and you will want to minimize the impact on operational processes and end users. Advanced PST management solutions can allow your PST migration to be scheduled and processed automatically with very little IT staff intervention.

If you are migrating to an Exchange server or to a hosted email solution, you should ensure that you don't exceed any mailbox quotas. Applying retention policies before or during migration will help in this process, as will doing a phased migration.

Step 8 – Delete PST Files

After the content from within each PST file has been migrated, you should delete these files so they can no longer be used, and so the storage they have been using will be recovered. If a file is connected to an Outlook profile, it will need to be disconnected before it can be deleted.

Finally, you should prevent end users from creating any new PST files. There is a setting for each user in their Outlook profile that determines whether PST files can be used, and you can update this using Group Policy.

Solutions for PST Elimination

Microsoft provides their **PST Capture**, which is a free tool that discovers PST files and migrates them into end user mailboxes. While it does provide a basic capability, it doesn't scale up to the level required by medium and larger-sized organizations. It requires a high level of manual intervention and doesn't cover all the tasks involved in finding, organizing, migrating and deleting PST files—so it is better suited for smaller organizations.

There are several very good third-party tools available, including our own **Barracuda PST Enterprise**. These tools can manage the whole migration process for even the largest of organizations, performing many of the migration tasks automatically while minimizing the impact on your end users. Therefore, use of these tools can prove highly cost-effective.

Whichever product you choose, we strongly recommend that you install an evaluation copy of the software and run a small proof-of-concept exercise before you go ahead and make the commitment to a particular vendor. Not only will this confirm that you have made the right choice, but it will also give you the valuable information you need to help you plan your migration project.

Conclusion

We have seen that PST files can be significant roadblocks to many different IT projects, and while eliminating them can be a complex process, it is a one-time process and there are excellent third party tools that can automate most of the tasks.

It is not necessary to wait until the next project is looming before addressing the problem. Eliminating PST files before starting more significant IT projects will provide an IT department with more flexibility since it removes an entire layer of complexity that will bog down these projects with unnecessary steps and workarounds.

Ultimately, removing PST files will have a positive effect on all downstream processes, as well as eliminating much of the legal risk and uncertainty in unmanaged containers of email data sitting out on your corporate servers and end users' desktops.

About Barracuda Networks, Inc.

Barracuda provides cloud-connected security and storage solutions that simplify IT. These powerful, easy-to-use, and affordable solutions are trusted by more than 150,000 organizations worldwide and are delivered in appliance, virtual appliance, cloud, and hybrid deployments. Barracuda's customer-centric business model focuses on delivering high-value, subscription-based IT solutions that provide end-to-end network and data security. For additional information, please visit barracuda.com.

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