Microsoft Exchange Server PowerShell Essentials

PowerShell has become one of the most important skills in an Exchange administrator's armory. PowerShell has proved its mettle so widely that, if you're not already starting to learn PowerShell, then you're falling behind the industry.

This book will walk you through the essentials of PowerShell in Microsoft Exchange Server and make sure you understand its nitty-gritty effectively.

You will first walk through the core concepts of PowerShell and their applications. This book discusses ways to automate tasks and activities that are performed by Exchange administrators and that otherwise take a lot of manual effort.

Microsoft Exchange PowerShell Essentials will provide all the required details for Active Directory, system, and Exchange administrators to help them understand Windows PowerShell and build the required scripts to manage the Exchange infrastructure.

Who this book is written for

This book is for administrators with a basic or limited understanding of Windows PowerShell and who want to increase their skill set in managing both the Exchange on-premises and online environments.

What you will learn from this book

- Deep dive into the Windows PowerShell basics
- Create and manage recipients and permissions
- Manage distribution groups members, permissions, and group types
- Understand certificates and Role-Based Access Control using real-world examples
- Review the usage of e-mail addresses, address books, and retention policies with examples
- Learn to manage Exchange Client Access and Mailbox Server roles
- Use PowerShell for auditing and risk management in your Exchange organization
- Manage a highly available Exchange environment using PowerShell
- Interact with Exchange through the use of the Exchange Web Services-managed API
In this package, you will find:

- The author biography
- A preview chapter from the book, Chapter 5 'Everything about Microsoft Exchange Policies'
- A synopsis of the book’s content
- More information on Microsoft Exchange Server PowerShell Essentials
About the Author

Biswanath Banerjee has been working with Exchange Servers since 2005 in various roles in support, training, and consulting. Spanning an IT career of over 14 years, he has worked on multiple Active Directory and Exchange migration projects. He specializes in Planning and Deployment of Microsoft Infrastructure Solutions such as Active Directory, Exchange, Lync, Skype for Business, and various Office 365 services.
Preface

PowerShell has become one of the most important skills in an Exchange administrator's armory. PowerShell has proved its mettle so widely that, if you're not already starting to learn PowerShell, then you're falling behind the industry. It isn't difficult to learn PowerShell at all. In fact, if you've ever run commands from a CMD prompt, then you'll be able to start using PowerShell straight away.

This book will walk you through the essentials of PowerShell in Microsoft Exchange Server, and make sure you understand its nitty gritty effectively. There are a lot of examples and scripts that will demonstrate how you can use PowerShell to be more effective and save time as an administrator, which otherwise would have been spent performing repetitive tasks.

Microsoft Exchange PowerShell Essentials will provide all the required details for Active Directory, System, and Exchange administrators to help them understand Windows PowerShell and build the required scripts to manage the Exchange Infrastructure.

What this book covers

Chapter 1, Getting Started with PowerShell, provides an introduction to Windows PowerShell, which will build a strong foundation for the latter chapters.

Chapter 2, Learning Recipient Management, teaches you ways to manage recipients in an Exchange organization.

Chapter 3, Handling Distribution Groups, is about managing different distribution groups as it plays a major role in the Exchange Administration.

Chapter 4, Exchange Security, talks about securing Exchange and delegating access to administration tasks using Role-Based Access Control.

Chapter 6, *Handling Exchange Server Roles*, talks about configuring Exchange Client Access such as POP, IMAP, Outlook Anywhere, ActiveSync, and different Transport Services.

Chapter 7, *Auditing and E-Discovery*, reviews auditing and discovery features in Exchange that will help Organizations meet their Compliance and e-discovery requirements.

Chapter 8, *Managing High Availability*, uses our knowledge of PowerShell to manage high availability for Exchange 2013 and 2016 Organization.

Chapter 9, *Exploring EWS Managed API*, reviews Exchange Web Services application programming interface (API) and its usage in managing an Exchange On Premise and Online Organization.

Chapter 10, *Common Administration Tasks*, reviews some of the common administrative tasks in Exchange and uses PowerShell to save time and effort spent in performing repetitive jobs.
In this chapter, we will cover the management of proxy addresses of recipients through E-mail Address Policies. Next segmentation of Global Address List will be covered through the use of Address book policies. We will finish this chapter by covering the messaging records management that manages the entire e-mail life cycle and reduces legal/compliance risks using Retention Policies and Tags.

The following topics will be covered in this chapter:

- Introducing Exchange Policies
- Creating and managing E-mail Address Policies
- Creating and managing Address book policies
- Creating and managing Retention Policies
- Automating Retention Policies
- Writing a basic script

**Introducing Exchange Policies**

You will learn about E-Mail Address Policies, the address book, and retention in this chapter.

In order to generate primary and secondary E-Mail addresses for recipients, which include users, groups, contacts, and resources, we use E-Mail Address Policies in an Exchange organization.
The next topic covers address book policies introduced in Exchange 2010 and is available in the Exchange 2013 and 2016 versions. Prior to the introduction of address book policies, the segmentation of Address Lists within an Exchange organization was a complicated process of managing Active Directory Access Control Lists to allow and deny access and using Query-based DN for directory searches.

Finally, we will end this chapter by reviewing how the e-mail lifecycle can be managed by the messaging records management. As an administrator, you will be able to define when an e-mail moves from a user's primary mailbox to archive or whether it is to be deleted permanently once it reaches the retention age.

Creating and managing E-mail Address Policies

We will first take a look at accepted domains and then come back to E-Mail Address Policies. An accepted domain is an SMTP name for which the Exchange organization is responsible for sending and receiving E-Mails.

There are three types of accepted domains:

- **Authoritative**: This is the domain with recipient's mailboxes hosted in your Exchange organization. If a domain is set to authoritative and the recipient is not found in Active Directory, a Non-Delivery Report (NDR) is sent to the sender.

- **Internal relay**: In this scenario, the domain will not have all the recipient's mailboxes in your Exchange organization. For example, you have Exchange and Lotus Domino as your messaging environment and a SMTP domain is shared between these two. In this case, you will configure the SMTP domain as internal relay and create a send connector for this domain that points to Lotus Domino where the rest of the mailboxes are located. If a recipient is not found in Active Directory, Exchange will look for a send connector with the closest match of the SMTP address space and route the e-mail to the other messaging environment.

- **External relay**: The difference between internal and external relay is based on the location of two messaging infrastructure. Internal relay is for scenarios where both the messaging infrastructures are inside your network boundary. External relay is for scenarios where the other messaging system is beyond your organization's network. For example, if you want to share a SMTP namespace with another company or an independent business unit, you will configure it as an external relay domain.
The default accepted domain that is listed in Exchange will be your Active Directory namespace. You need to add additional accepted domains with different types based on your scenario before you can use them in your E-mail Address Policies. For example, if you want to use contoso.com and all its child domains, you need to use *.contoso.com as your SMTP namespace.

The e-mail address stamped by the default E-Mail address policy will have the format of alias@defaultaccepteddomain.com. The alias that appears before the 'at sign' (@) is called the local part of the E-mail Address. This local part of the E-mail Address can be modified based on the following variables:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>%g</td>
<td>Given name (first name)</td>
</tr>
<tr>
<td>%i</td>
<td>Middle initial</td>
</tr>
<tr>
<td>%s</td>
<td>Surname (last name)</td>
</tr>
<tr>
<td>%d</td>
<td>Display name</td>
</tr>
<tr>
<td>%m</td>
<td>Exchange alias</td>
</tr>
<tr>
<td>%x</td>
<td>Uses the first (x) letters of the surname. For example, if (x = 2), the first two letters of the surname are used</td>
</tr>
<tr>
<td>%x</td>
<td>Uses the first (x) letters of the given name. For example, if (x = 2), the first two letters of the given name are used</td>
</tr>
</tbody>
</table>


So, if you want your users to use firstname.lastname@defaultaccepteddomain.com, you will use the %g.%s@defaultaccepteddomain.com variable in your E-mail address policy.

At times, you need to work with non-SMTP e-mail address if you are working with Lotus or Novell GroupWise coexistence with Exchange environments. Exchange supports the following non-SMTP e-mail address formats:

- EX (Legacy DN Proxy Address Prefix Display Name)
- X.500
- X.400
- MSMail
- CcMail
- Lotus Notes
Everything about Microsoft Exchange Policies

- Novell GroupWise
- Exchange Unified Messaging proxy address (EUM proxy address)

All the non-SMTP address types are considered custom types and Exchange will not provide the wizard and property pages for X400, Lotus Domino, or GroupWise address types. So, if you are using any of these address types, you must have the dynamic link library (DLL) file used for these address generators. If you don't have the file, these custom addresses will not be stamped on recipients, and you will get an error message indicating that the DLL file is missing.

Now, let's go ahead and create a new E-Mail Address Policy that will stamp the first four letters of the first name with the last name for a new authoritative accepted domain called fabricam.com.

The first step is to add *.fabrikam.com as the accepted domain, which can be achieved by typing the following cmdlet in Exchange Management Shell. We used a wildcard character as we are going to use one of the subdomains in the later example while creating a new E-Mail Address Policy:

```
New-AcceptedDomain -DomainName *.fabrikam.com -DomainType Authoritative -Name Fabrikam
```

You can configure accepted domains through Exchange Admin Center by navigating to the Mail Flow | accepted domain tab as shown in the following screenshot:
Now, we will create an E-Mail Address policy that will include all the mailbox users whose departments have the value Tax, Controller, and more, and it will stamp the primary e-mail address of their given name followed by the first two letters of the surname and then @finance.fabrikam.com:

```
New-EmailAddressPolicy -Name "Finance Users" -IncludedRecipients MailboxUsers -ConditionalDepartment "Controller","Accounts Payable","Accounts Receivable","Payroll","Treasury","Tax" -EnabledEmailAddressTemplates "SMTP:%g%2s@finance.fabrikam.com"
```

You can review the settings through Exchange Admin Center (EAC) by navigating to the Mail Flow | email address.

In order to test the previous policy on one of the existing mailboxes, change the department attribute to Tax, Payroll, or any of those listed in the previous command. Then, run the following cmdlet:

```
Update-EmailAddressPolicy -Identity "Finance Users"
```

Now, check the e-mail address of the mailbox. It should have the primary e-mail address as follows:

![Email Address Policy](https://mail.contoso.com/?pwmcid=3&ReturnObjectType=1&id=c2e484e-d156-455b1652)

In the next section, you will learn how to use address book policies for the segmentation of address books within a single Exchange organization.
Creating and managing Address Book policies

In Exchange 2010 SP2, Address Book Policies were introduced to help administrators segregate the address lists between different departments or business units within a single Exchange organization. There was a whitepaper on how to segregate address lists using Exchange 2007, but it was complicated, and there was limited support while upgrading to Exchange 2010 SP2 or the Hosted Messaging and Collaboration (HMC) platforms, which were primarily used by commercial e-mail hosters to host multiple customers on a single exchange organization, creating a logical isolation between the customer's organizations.

Address Book Policies (ABPs) contain the following:

- One or more address lists
- One default address list
- One room address list
- One offline address book

You can create multiple Address Book Policies (ABPs) such as the one in the picture and assign it to mailbox users. They take effect when the user's application tries to connect to e-mail address book service on the Client Access Server role.
ABPs allow us to logically separate one Exchange organization to multiple independent units where users in one department will not be able to view other users from other departments or business units in any of the address lists. Here are some of the best practices we need to follow when deploying ABPs:

- The user mailboxes should be hosted on Exchange 2010 SP2 and later versions.
- Client Access server roles should not be deployed on Active Directory global catalog servers. If you run Client Access servers on global catalog servers, the Name Service Provider Interface (NSPI) will be used for the address book query instead of the Exchange address book service and ABPs created will be ineffective.
- The Room list is a must for all ABPs. If you are not using Room lists, you can create an empty one and associate it with the ABPs.
- Hierarchical address books (HABs) and ABPs do not work simultaneously. It will be one or the other.
- Clients such as Entourage or Outlook for Mac use LDAP queries when internal to the network; they will connect to the Domain controllers and ABPs will not work for them. If you have these clients in your network, plan your network access in such a way that these clients connect to Exchange from an external network. In this case, they will use Exchange web services and ABPs will apply to them.
- Deploying ABPs alone will not restrict users from sending e-mails to users in another virtual organization. If you want to prevent users from sending e-mails to other virtual organizations, you have to use transport rules to restrict the e-mail flow.
- The Global Address list must contain all the address lists including the Room list.
- Distribution groups should not span across different departments when using ABPs, otherwise you will run into the following issues:
  - If someone sends an e-mail to a group with a read or delivery receipt, and the group contains members from other department or virtual organizations, the sender will be able to see the members in the other organization.
  - The Get-Group cmdlets will not be impacted by ABPs. It means if you have a distribution group with members from two virtual organizations and you execute the Get-Group cmdlet, it will list all the users of the group based on the permission of the user who is executing the cmdlet.
Now, let's configure ABPs for the following scenario. LitwareInc have acquired another company called ProsewareInc. Each of these organizations uses Exchange 2010 SP2 or later versions and has already migrated mailboxes from ProsewareInc to the LitwareInc Exchange organization. They want to run operations as separate business units with no common management hierarchy and shared employees.

Now, with this information, we will deploy ABPs for these two companies in our Exchange organization. Here are the steps to deploy ABPs:

First, begin with the installation and configuration of address book policy routing agents.

We are going to install the ABPs transport agent by running the following command:

```
```

The next step is to enable the ABPs routing agent:

```
Enable-TransportAgent "ABP Routing Agent"
```

Restart the transport service after enabling the agent and verify the installation by running the following commands:

```
Restart-Service MSExchangeTransport
Get-TransportAgent
```

The following command enables the ABPs routing agent:

```
Set-TransportConfig -AddressBookPolicyRoutingEnabled $true
```

The next step is to divide the Exchange organization using the customattribute 1-15 properties instead of attributes such as Company, StateOrProvince, or Department as these attributes are not available for all recipient types. For example, the attributes such as Company, Department, and so on are not available for cmdlets for mail-enabled users, contacts, and distribution groups.

So, we will create two organizational units called LitwareInc and ProsewareInc and use CustomAttribute5 for our users, contacts, and distribution groups. We will then use the LitwareInc and ProsewareInc values as values for the respective Organization Units.
Here are the commands that you can use once you have created the mailboxes, contacts, and distribution groups in the respective Organizational Units to populate CustomAttribute5:

For user mailboxes, perform the following:

```
Get-Mailbox -OrganizationalUnit LitwareInc | Set-Mailbox CustomAttribute5 "LitwareInc"
Get-Mailbox -OrganizationalUnit ProsewareInc | Set-Mailbox CustomAttribute5 "ProsewareInc"
```

For Distribution groups, perform the following:

```
Get-DistributionGroup -OrganizationalUnit LitwareInc | Set-DistributionGroup CustomAttribute5 "LitwareInc"
Get-DistributionGroup -OrganizationalUnit ProsewareInc | Set-DistributionGroup CustomAttribute5 "ProsewareInc"
```

For contacts, perform the following:

```
Get-MailContact -OrganizationalUnit LitwareInc | Set-MailContact -CustomAttribute5 "LitwareInc"
Get-MailContact -OrganizationalUnit ProsewareInc | Set-MailContact -CustomAttribute5 "ProsewareInc"
```

So, we will create two ABPs for LitwareInc and ProsewareInc with their own address lists, room lists, Global Address list, and Offline address books with a recipient filter of CustomAttribute5. Here is the list of objects that need to be created:

<table>
<thead>
<tr>
<th>Litware Inc</th>
<th>Proseware Inc</th>
</tr>
</thead>
<tbody>
<tr>
<td>Users and Distribution groups</td>
<td>Users and Distribution groups</td>
</tr>
<tr>
<td>All_LitwareInc_Users DG</td>
<td>All_ProsewareInc_Users DG</td>
</tr>
<tr>
<td>All_LitwareInc_Groups</td>
<td>All_ProsewareInc_Groups</td>
</tr>
<tr>
<td>Conference Rooms – Room List</td>
<td>Conference Rooms – Room List</td>
</tr>
<tr>
<td>All_LitwareInc_Rooms</td>
<td>All_ProsewareInc_Rooms</td>
</tr>
<tr>
<td>Contacts: All_LitwareInc_Contacts</td>
<td>Contacts: All_ProsewareInc_Contacts</td>
</tr>
<tr>
<td>Global Address List: GAL_LitwareInc</td>
<td>Global Address List: GAL_ProsewareInc</td>
</tr>
<tr>
<td>Offline Address Book: OAB_LitwareInc</td>
<td>Offline Address Book: OAB_ProsewareInc</td>
</tr>
</tbody>
</table>
In the next step, we are going to create the address lists in line with the following table:

<table>
<thead>
<tr>
<th>Objects</th>
<th>LitwareInc</th>
<th>ProsewareInc</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address Lists</td>
<td>AL_LitwareInc_Groups</td>
<td>AL_ProsewareInc_Groups</td>
</tr>
<tr>
<td></td>
<td>AL_LitwareInc_Users</td>
<td>AL_ProsewareInc_Users</td>
</tr>
<tr>
<td></td>
<td>AL_LitwareInc_Contacts</td>
<td>AL_ProsewareInc_Contacts</td>
</tr>
<tr>
<td>Global address lists</td>
<td>GAL_LitwareInc</td>
<td>GAL_ProsewareInc</td>
</tr>
<tr>
<td>Room address lists</td>
<td>AL_LitwareInc_Rooms</td>
<td>AL_ProsewareInc_Rooms</td>
</tr>
<tr>
<td>Offline address books (OAB)</td>
<td>OAB_LitwareInc</td>
<td>OAB_ProsewareInc</td>
</tr>
</tbody>
</table>

The command will create address lists for Mailboxes and distribution groups for LitwareInc and ProsewareInc:

```powershell
New-AddressList -Name "AL_LitwareInc_Users_DG" -RecipientFilter {
((RecipientType -eq 'UserMailbox') -or (RecipientType -eq "MailUniversalDistributionGroup") -or (RecipientType -eq "DynamicDistributionGroup")) -and (CustomAttribute5 -eq "LiwareInc")}
New-AddressList -Name "AL_ProsewareInc_Users_DG" -RecipientFilter {
((RecipientType -eq 'UserMailbox') -or (RecipientType -eq "MailUniversalDistributionGroup") -or (RecipientType -eq "DynamicDistributionGroup")) -and (CustomAttribute5 -eq "ProsewareInc")}
```

The following command will create address lists for contacts for both the organizations:

```powershell
New-AddressList -Name "AL_LitwareInc_Contacts" -RecipientFilter {
(RecipientType -eq 'MailContact') -and (CustomAttribute5 -eq "LiwareInc")}
New-AddressList -Name "AL_ProsewareInc_Contacts" -RecipientFilter {
(RecipientType -eq 'MailContact') -and (CustomAttribute5 -eq "ProsewareInc")}
```

This is for the room list of LiwareInc and ProsewareInc:

```powershell
New-AddressList -Name AL_LitwareInc_Rooms -RecipientFilter {
(Alias -ne $null) -and (CustomAttribute5 -eq "LiwareInc") -and (RecipientDisplayType -eq 'ConferenceRoomMailbox') -or (RecipientDisplayType -eq 'SyncedConferenceRoomMailbox')}
```
New-AddressList -Name AL_ProsewareInc_Rooms -RecipientFilter
{(Alias -ne $null) -and (CustomAttribute5 -eq "ProsewareInc") -
and (RecipientDisplayType -eq 'ConferenceRoomMailbox') -or
(RecipientDisplayType -eq 'SyncedConferenceRoomMailbox'))

Now, we have to create Global Address Lists:

New-GlobalAddressList -Name "GAL_LiwareInc" -RecipientFilter
{(CustomAttribute5 -eq "LiwareInc")
New-GlobalAddressList -Name "GAL_ProsewareInc" -RecipientFilter
{(CustomAttribute5 -eq "ProsewareInc")}

Finally, we create the Offline Address Book:

New-OfflineAddressBook -Name "OAB_LiwareInc" -AddressLists "GAL_
LiwareInc"
New-OfflineAddressBook -Name "OAB_ProsewareInc" -AddressLists "GAL_
ProsewareInc"

Next, we are going to create new ABPs for LiwareInc and ProsewareInc users and
assign these policies to the users:

New-AddressBookPolicy -Name "ABP_LiwareInc" -AddressLists "AL_LiwareInc_
Users_DG","AL_LiwareInc_Contacts" -OfflineAddressBook "\OAB_LiwareInc"
-GlobalAddressList "\GAL_LiwareInc" -RoomList "\AL_LiwareInc_Rooms"
New-AddressBookPolicy -Name "ABP_ProsewareInc" -AddressLists "AL_
ProsewareInc_Users_DG","AL_ProsewareInc_Contacts" -OfflineAddressBook "\
OAB_ProsewareInc" -GlobalAddressList "\GAL_ProsewareInc" -RoomList "\
AL_ProsewareInc_Rooms"

The following command will apply the new ABPs to the mailboxes on LiwareInc
and ProsewareInc OUs whose CustomAttribute5 has been populated earlier in
Step 2:

Get-Mailbox -resultsize unlimited | where {$_\.CustomAttribute5 -eq
"LiwareInc"} | Set-Mailbox -AddressBookPolicy "ABP_LiwareInc"
Get-Mailbox -resultsize unlimited | where {$_\.CustomAttribute5 -eq
"ProsewareInc"} | Set-Mailbox -AddressBookPolicy "ABP_ProsewareInc"

Now is the time to test the ABP configuration. Try logging in with a user who is
located in LiwareInc Organizational Unit, and create an outlook profile, and try to
find users in ProsewareInc users. The ABPs will not allow users in LiwareInc or
ProsewareInc Organizational Units to view the GAL of other department or virtual
organization.
Creating and managing Retention Policies

Messaging Records Management (MRM) is used in Exchange 2010 and later versions to manage the e-mail lifecycle based on business, legal, and compliance requirements and for efficient storage management. Starting with Exchange 2010, retention tags and policies are introduced for MRM. Once you create a retention tag, you can apply it to an entire mailbox and default mailbox folders such as Inbox and Sent Items. You can also create personal tags that allow your users to apply them to individual items or folders using Outlook or Outlook Web App. Once the retention age is reached for a particular item, Managed Folder Assistant, which runs on mailbox servers, takes the action specified in the tag. For example, it can move the item to the Users In-Place archive or delete the message permanently.

Let's understand the different types of retention tags available and how they can be linked in a retention policy and applied to user mailboxes.

Retention tags can be of three types based on where they can be applied and who can use them:

- **Default Policy Tag (DPT):** This tag is configured by administrator and meant for all untagged items in the mailbox, which doesn't have a retention tag applied. The users will not be able to change these tags. The actions available to DPTs are Move to archive, Delete and Allow recovery, and Permanently Delete.

- **Retention Policy Tag (RPT):** These tags are also configured by the administrator and applied automatically to the default folders such as Inbox, Sent, and Deleted Items. End users cannot make changes to RPT applied to default folders. The actions that you can use with RPTs are Delete and Allow Recovery, and Permanently Delete.

- **Personal Tag:** Personal tags are used by end users to tag items either through inbox rules or manually using Outlook or Outlook Web App. The actions available to Personal tags are Move to archive, Delete and allow recovery, and Permanently Delete.

Now that you have learned the different types of retention tags, let's understand the use of Retention Policies that group these tags based on retention, business, and legal requirements.
A retention policy can have the following:

- One Default Policy Tag (DPT) for Moving items to Archive action
- One Default Policy Tag (DPT) for Deleting and Allowing recovery or Permanently Delete actions
- One Default Policy Tag (DPT) for voice mail messages with Delete and allow recovery or Permanently Delete action
- One Retention Policy Tag (RPT) for each default folder
- Any number of personal tags

Now, let's configure retention tags and policies for Contoso. Here are the retention requirements:

- Items from all the Default folders should be moved to archive after 90 days
- Items in the Deleted Items folder should be permanently deleted after 365 days (1 year)
- Users should have the option to retain items for up to 1,825 days (5 years)

In order to meet the previous requirements, we need to create a Default Policy Tag (DPT), which will move items from Users Primary Mailbox to his Archive Mailbox after 90 days. Next, we will create a Retention Policy tag for Deleted Items that will permanently delete items after 365 days. For the last requirement, we need to create a personal tag 1825 as the retention age that users can use to tag items, which should be retained for 5 years.

The following command will create a Default Policy Tag to move items to archive after 90 days. Note that we have used the –Type All parameter for DPTs:

```
New-RetentionPolicyTag "90 Days Archive" -Type All -Comment "This tag moves all items to archive after 90 days" -RetentionEnabled $true -AgeLimitForRetention 90 -RetentionAction MoveToArchive
```

For the next requirement, we will use a Retention Policy Tag (RPT) on DeletedItems, which will permanently delete items after 1 year:

```
New-RetentionPolicyTag "Deleted Items Cleanup - 1 year" -Type DeletedItems -Comment "This tag permanently deletes e-mail from the Deleted Items folder after 1 year" -RetentionEnabled $true -AgeLimitForRetention 365 -RetentionAction PermanentlyDelete
```
Everything about Microsoft Exchange Policies

The last requirement is to create a Personal tag that will allow users to tag items for up to 5 years before deleting them:

```
New-RetentionPolicyTag "Business Critical - 5 years retention" -Type Personal -Comment "This tag must be used for all business critical mails" -RetentionEnabled $true -AgeLimitForRetention 1825 -RetentionAction PermanentlyDelete
```

The next step is to create a Retention Policy with all these tags in it and then apply it to the user's mailbox:

```
New-RetentionPolicy "Contoso General Retention Policy" -RetentionPolicyTagLinks "90 Days Archive","Deleted Items Cleanup - 1 year","Business Critical - 5 years retention"
```

The following command will apply this policy to Amy Albert's mailbox. You can use the output of the `Get-Mailbox` cmdlet with a filter and pipe the output objects to the `Set-Mailbox` cmdlet to assign this to all or a specific group of users in your Exchange organization:

```
Get-Mailbox -ResultSize Unlimited | Set-Mailbox -RetentionPolicy "Contoso General Retention Policy"
```

If you want to start the processing of messages immediately for all mailboxes, you need to use the `Start-ManagedFolderAssistant` cmdlet:

```
Get-Mailbox -Filter {(RecipientTypeDetails -eq 'UserMailbox')} | ForEach {Start-ManagedFolderAssistant $_.Identity}
```

Writing a basic script

There are times when, as an administrator, you need secondary SMTP addresses to be added to mailboxes.

You can use a `.csv` file to list all the users with their alias and new e-mail addresses in the following format and save it as the `E-mailAddresses.csv` file:

```
alias,e-mailaddress
hollyh,hollyh@wingtiptoys.com
amya,amya@wingtiptoys.com
susanb,susanb@wingtiptoys.com
```

[104]
Then, use the following command either directly on Exchange Management Shell or save it in a .ps1 file:

```powershell
Import-Csv c:\Scripts\E-mailaddresses.csv | Foreach{set-mailbox -identity $_.Alias -E-mailAddresses @{add=$_.e-mailaddress}}
```

## Summary

In this chapter, you learned all about managing E-Mail Address Policies. Then, we reviewed how to segregate address lists using Address Book Policies. Finally, we saw e-mail lifecycle management using Messaging Records Management (MRM) and Retention Policies in Exchange 2013 and Exchange online.

In the next chapter, we will discuss configuring Exchange Client Access and Transport Services.
Where to buy this book

You can buy Microsoft Exchange Server PowerShell Essentials from the Packt Publishing website.

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