

Rozdział 1: Kluczowe koncepcje PowerShell

```
Administrator: Windows PowerShell
PS C:\> Get-Help New-Mailbox -Parameter Password

-Password <SecureString>
The Password parameter specifies the password for the mailbox (the user account that's associated with the mailbox). This parameter isn't required if you're creating a linked mailbox, resource mailbox, or shared mailbox, because the associated user accounts are disabled for these types of mailboxes.

This parameter uses the syntax (ConvertTo-SecureString -String '<password>' -AsPlainText -Force). Or, to be prompted to enter the password and store it as a variable, run the command $password = Read-Host "Enter password" -AsSecureString, and then use the value $password for this parameter.

Required?                true
Position?                Named
Default value
Accept pipeline input?   False
Accept wildcard characters? false
```

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```
Machine: tlex01.testlabs.se
[PS] C:\>Get-Command Get-Service

CommandType      Name                Version
-----
Cmdlet           Get-Service         3.1.0.0
```

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```
Machine: tlex01.testlabs.se
[PS] C:\>Get-Command Get-Mailbox

CommandType      Name                Version
-----
Function         Get-Mailbox         1.0
```

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```
Machine: tlex01.testlabs.se
[PS] C:\>Get-Mailbox -Database DB2 | Remove-Mailbox -WhatIf
What if: Removing mailbox "testlabs.se/Users/testuser" will remove the Active Directory user object and mark the mailbox and the archive (if present) in the database for removal.
[PS] C:\>
```

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```
Machine: tlex01.testlabs.se
[PS] C:\>Remove-Mailbox -Identity testuser

Confirm
Are you sure you want to perform this action?
Removing mailbox "testuser" will remove the Active Directory user object and mark the mailbox and the archive (if present) in the database for removal.
[Y] Yes  [A] Yes to All  [N] No  [L] No to All  [?] Help
(default is "Y"):
```

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```
Machine: tlex01.testlabs.se
[PS] C:\>$mailbox.MaxSendSize.Value | Get-Member -MemberType Method

TypeName: Microsoft.Exchange.Data.ByteQuantifiedSize

Name           MemberType Definition
-----
CompareTo      Method      int CompareTo(Microsoft.Exchange.Data.ByteQuan...
Equals         Method      bool Equals(System.Object obj), bool Equals(Mi...
GetHashCode    Method      int GetHashCode()
GetType        Method      type GetType()
RoundUpToUnit  Method      uint64 RoundUpToUnit(Microsoft.Exchange.Data.B...
ToBytes        Method      uint64 ToBytes()
ToGB           Method      uint64 ToGB()
ToKB           Method      uint64 ToKB()
ToMB           Method      uint64 ToMB()
ToString       Method      string ToString(), string ToString(string form...
ToTB           Method      uint64 ToTB()

[PS] C:\>
```

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```
Machine: tlex01.testlabs.se
[PS] C:\>$var1 = 32
[PS] C:\>$var1.GetType()

IsPublic IsSerial Name                                     BaseType
-----
True     True     Int32                                     System.Value...

[PS] C:\>[string]$var2 = 32
[PS] C:\>$var2.GetType()

IsPublic IsSerial Name                                     BaseType
-----
True     True     String                                    System.Object

[PS] C:\>
```

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```
Machine: tlex01.testlabs.se
[PS] C:\>$mailboxes = Get-Mailbox t*
[PS] C:\>$mailboxes

Name           Alias           ServerName ProhibitSe
-----
Terrance Randolph trandolph      tlex01     Unlimited
testuser       testuser       tlex01     Unlimited
Tomas Dawson   tdawson       tlex01     Unlimited

[PS] C:\>
```

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```
Machine: tlex01.testlabs.se
[PS] C:\>$mailboxes[0]
```

Name	Alias	ServerName	ProhibitSendQuota
Terrance Randolph	trandolph	tlex01	Unlimited

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```
Machine: tlex01.testlabs.se
[PS] C:\Scripts>$mailboxes |
>> Format-Table Name,
>> Database,
>> @{name="Title";expression={(Get-User $_.Name).Title}},
>> @{name="Dept";expression={(Get-User $_.Name).Department}} -AutoSize
```

Name	Database	Title	Dept
Pete Dickson	DB1		
Emanuel Moss	DB1		
Lee Sanders	DB1		
Arlene Finley	DB1		
Ruben Mcleod	DB1		
testuser	DB2	Manager	Sales
Terrance Randolph	DB1		
Tomas Dawson	DB2		
Alice Andersson	DB1		
Indie Andersson	DB1		
Ann Andersson	DB2		
Klas Andersson	DB1		
Sofie Andersson	DB2		

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```
Machine: tlex01.testlabs.se
[PS] C:\Scripts>.\loop.ps1
Value: 1
Value: 2
Value: 3
Value: 4
At C:\Scripts\loop.ps1:3 char:1
+ Write-Host "Value: $i"
+ ~~~~~
[PS] C:\Scripts>
```

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```
Machine: tlex01.testlabs.se
[PS] C:\Scripts>$job = Start-Job -ScriptBlock { Set-PSBreakpoint C:\Scripts\MyJob.ps1 -Line 4; C:\Scripts\MyJob.ps1 }
[PS] C:\Scripts>$job
```

Id	Name	PSJobTypeName	State	HasMoreData	Location
3	Job3	BackgroundJob	Running	True	lo...

```

[PS] C:\Scripts>Debug-Job $job
Hit Line breakpoint on 'C:\Scripts\MyJob.ps1:4'

At C:\Scripts\MyJob.ps1:4 char:3
+ $i++
+ ~~~~
[DBG]: [Job4]: PS C:\Users\administrator.TESTLABS\Documents>>
```

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```
Machine: tlex01.testlabs.se
[PS] C:\>Get-ExecutionPolicy -List | Format-Table -AutoSize

Scope      ExecutionPolicy
-----
MachinePolicy Undefined
UserPolicy  Undefined
Process     Undefined
CurrentUser RemoteSigned
LocalMachine RemoteSigned

[PS] C:\>
```

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```
Administrator: Windows PowerShell
PS C:\HelpFiles> Update-Help -SourcePath "C:\HelpFiles" -Force

Updating Help for module Microsoft.PowerShell.Core
Installing Help content...
[ ]
```

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```
Machine: tlex01.testlabs.se
[PS] C:\>Install-Package -Name "AzureAD"

The package(s) come(s) from a package source that is not marked as trusted.
Are you sure you want to install software from 'PSGallery'?
[Y] Yes [A] Yes to All [N] No [L] No to All [S] Suspend [?] Help (default is "N"): Y

Name                           Version      Source        Summary
----
AzureAD                        2.0.0.71     PSGallery     This is the General Availability release of Azure A...
```

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```
Machine: tlex01.testlabs.se
[PS] C:\>Get-Uptime

Computersname  Days  Hours  Minutes  Seconds
-----
localhost      0     0      16       43

[PS] C:\>
```

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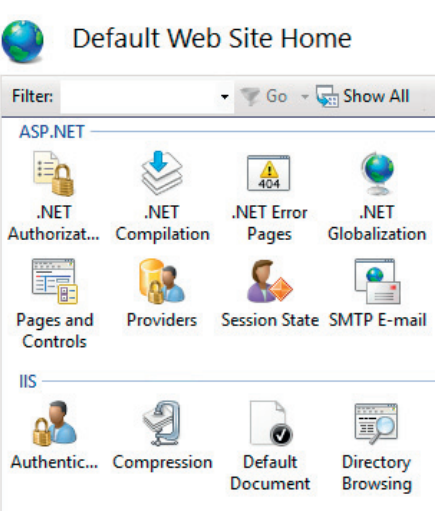
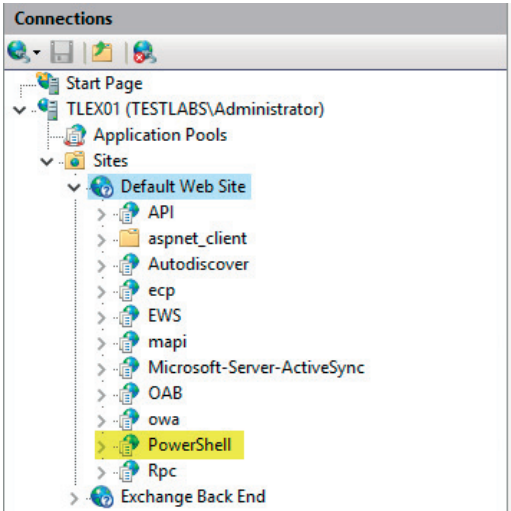
Rozdział 2: Typowe zadania powłoki Exchange Management

```
Administrator: Windows PowerShell
PS C:\> $credential = Get-Credential

cmdlet Get-Credential at command pipeline position 1
Supply values for the following parameters:
Credential
PS C:\> $session = New-PSSession -ConfigurationName Microsoft.Exchange -Con
nectionUri http://tlex01.testlabs.se/PowerShell/ -Credential $credential
PS C:\> Import-PSSession $session -AllowClobber
WARNING: The names of some imported commands from the module
'tmp_unlbq5hj.wn3' include unapproved verbs that might make them less
discoverable. To find the commands with unapproved verbs, run the
Import-Module command again with the Verbose parameter. For a list of
approved verbs, type Get-Verb.

ModuleType Version      Name                               ExportedCommands
-----
Script      1.0          tmp_unlbq5hj.wn3                  {Add-ADPermis...
```

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```
Machine: tlex01.testlabs.se
[PS] C:\>Get-Mailbox

Name                                     Alias                               ServerName  ProhibitSe
-----
DiscoverySearchMailbox...              DiscoverySearchMa...              db5pr01mb1013  50 GB (...
FR Room11                             FR.Room1                         amspr01mb296   99 GB (...
FR Room20                             FR.Room20                        he1pr01mb0780  99 GB (...
FR Room3                              FR.Room3                         he1pr01mb1865  99 GB (...
FR Room4                              FR.Room4                         db4pr01mb269   99 GB (...
FR Room5                              FR.Room5                         db4pr01mb0702  99 GB (...
jonas.andersson                        jonas.andersson                  am4pr0101mb2081 99 GB (...
Room ADM                              r1.adm                           db3pr01mb235   99 GB (...
Room EDU                              r1.edu                           am3pr01mb289   99 GB (...
Room1                                  room1                            am3pr01mb1170  99 GB (...)
```

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```
Machine: tlex01.testlabs.se
[PS] C:\>$credential.UserName
testlabs\administrator
[PS] C:\>$credential.GetNetworkCredential().Password
P@ssw0rd01
[PS] C:\>
```

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```
Machine: tlex01.testlabs.se
[PS] C:\Temp>Import-Csv .\report.csv

Name                        EmailAddresses
-----
Administrator              Microsoft.Exchange.Data.ProxyAddressCollection
Pete Dickson               Microsoft.Exchange.Data.ProxyAddressCollection
Emanuel Moss               Microsoft.Exchange.Data.ProxyAddressCollection
Lee Sanders                Microsoft.Exchange.Data.ProxyAddressCollection
Arlene Finley              Microsoft.Exchange.Data.ProxyAddressCollection
Ruben McLeod               Microsoft.Exchange.Data.ProxyAddressCollection
testuser                   Microsoft.Exchange.Data.ProxyAddressCollection
Terrance Randolph          Microsoft.Exchange.Data.ProxyAddressCollection
Tomas Dawson               Microsoft.Exchange.Data.ProxyAddressCollection
Alice Andersson            Microsoft.Exchange.Data.ProxyAddressCollection
Indie Andersson            Microsoft.Exchange.Data.ProxyAddressCollection
Ann Andersson              Microsoft.Exchange.Data.ProxyAddressCollection
Klas Andersson             Microsoft.Exchange.Data.ProxyAddressCollection
Sofie Andersson            Microsoft.Exchange.Data.ProxyAddressCollection
Jonas Andersson            Microsoft.Exchange.Data.ProxyAddressCollection
```

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```
Machine: tlex01.testlabs.se
[PS] C:\Temp>Import-Csv .\report1.csv

Name      Email
-----
Administrator SMTP:Administrator@testlabs.se
Pete Dickson SMTP:pdickson@testlabs.se
Emanuel Moss SMTP:emoss@testlabs.se
Lee Sanders SMTP:lsanders@testlabs.se
Arlene Finley SMTP:afinley@testlabs.se
Ruben McLeod SMTP:rmcleod@testlabs.se
testuser SMTP:testuser@testlabs.se
Terrance Randolph SMTP:trandolph@testlabs.se
Tomas Dawson SMTP:tdawson@testlabs.se
Alice Andersson SMTP:alice@testlabs.se
Indie Andersson SMTP:indie@testlabs.se
Ann Andersson SMTP:ann@testlabs.se
Klas Andersson SMTP:klas@testlabs.se
Sofie Andersson SMTP:sofie@testlabs.se
Jonas Andersson smtp:jonas.andersson@testlabs.se;SMTP:jonas@testlabs.se
```

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```
Machine: tlex01.testlabs.se
[PS] C:\Temp>Import-Csv .\report2.csv

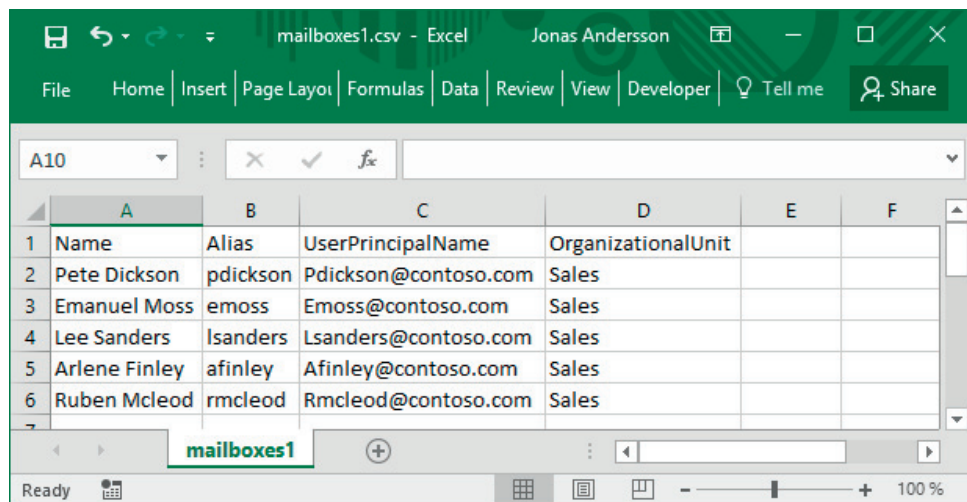
Name      Email
-----
Administrator Administrator@testlabs.se
Pete Dickson pdickson@testlabs.se
Emanuel Moss emoss@testlabs.se
Lee Sanders lsanders@testlabs.se
Arlene Finley afinley@testlabs.se
Ruben McLeod rmcleod@testlabs.se
testuser testuser@testlabs.se
Terrance Randolph trandolph@testlabs.se
Tomas Dawson tdawson@testlabs.se
Alice Andersson alice@testlabs.se
Indie Andersson indie@testlabs.se
Ann Andersson ann@testlabs.se
Klas Andersson klas@testlabs.se
Sofie Andersson sofie@testlabs.se
Jonas Andersson jonas.andersson@testlabs.se;jonas@testlabs.se
```

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```
Machine: tlex01.testlabs.se
[PS] C:\>Start-Transcript
Transcript started, output file is C:\Users\administrator.TESTLABS\Documents\PowerShell_transcript.TLEX01.VLpv8RPG.20170316211425.txt
[PS] C:\>
```

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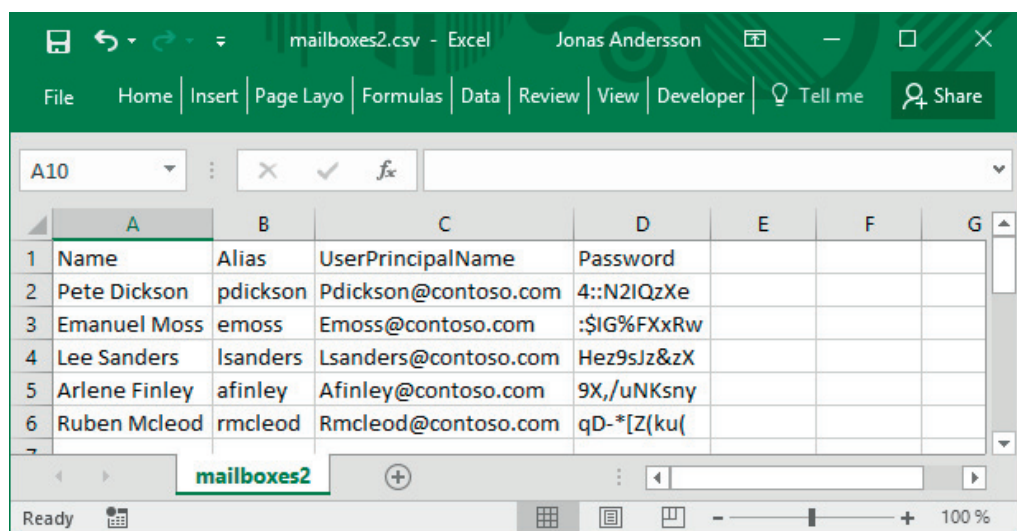
Rozdział 3: Zarządzanie odbiorcami



The screenshot shows an Excel spreadsheet titled 'mailboxes1.csv'. The data is organized into columns: Name, Alias, UserPrincipalName, and OrganizationalUnit. The rows list six users: Pete Dickson, Emanuel Moss, Lee Sanders, Arlene Finley, and Ruben Mcleod, all associated with the 'Sales' organizational unit.

	A	B	C	D	E	F
1	Name	Alias	UserPrincipalName	OrganizationalUnit		
2	Pete Dickson	pdickson	Pdickson@contoso.com	Sales		
3	Emanuel Moss	emoss	Emoss@contoso.com	Sales		
4	Lee Sanders	lsanders	Lsanders@contoso.com	Sales		
5	Arlene Finley	afinley	Afinley@contoso.com	Sales		
6	Ruben Mcleod	rmcleod	Rmcleod@contoso.com	Sales		

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The screenshot shows an Excel spreadsheet titled 'mailboxes2.csv'. The data is organized into columns: Name, Alias, UserPrincipalName, and Password. The rows list the same five users as the previous table, with their respective passwords.

	A	B	C	D	E	F	G
1	Name	Alias	UserPrincipalName	Password			
2	Pete Dickson	pdickson	Pdickson@contoso.com	4::N2IQzXe			
3	Emanuel Moss	emoss	Emoss@contoso.com	:\$IG%FXxRw			
4	Lee Sanders	lsanders	Lsanders@contoso.com	Hez9sJz&zX			
5	Arlene Finley	afinley	Afinley@contoso.com	9X,/uNKsny			
6	Ruben Mcleod	rmcleod	Rmcleod@contoso.com	qD-*[Z(ku{			

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Send Attach Discard ...

helpdesk : A Help Desk representative will contact you within 2 hours.

To  helpdesk x

Cc

Add a subject

Add a message or drag a file here

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```
Machine: tlex01.testlabs.se
[PS] C:\>Get-MailboxAutoReplyConfiguration dave

RunspaceId           : d784ba26-17e5-45bc-8fef-4a0f8b763439
AutoDeclineFutureRequestsWhenOOOF : False
AutoReplyState        : Scheduled
CreateOOFEvent        : False
DeclineAllEventsForScheduledOOOF : False
DeclineEventsForScheduledOOOF : False
EventsToDeleteIDs     :
EndTime              : 2017-04-03 00:00:00
ExternalAudience      : All
ExternalMessage       : <html>
                        <body>
                        I will be out of the office this week
                        </body>
                        </html>
InternalMessage       :
DeclineMeetingMessage :
OOFEEventSubject      :
StartTime             : 2017-03-25 00:00:00
MailboxOwnerId        : testlabs.se/Sales/Seattle/Dave Jones
Identity              : testlabs.se/Sales/Seattle/Dave Jones
IsValid               : True
ObjectState           : Unchanged
```

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```
Machine: tlex01.testlabs.se
[PS] C:\>Get-InboxRule -Mailbox dave

Name Enabled Priority RuleIdentity
-----
Sales True 1 5838072491955716097
```

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Rozdział 4: Zarządzanie skrzynkami pocztowymi

```
Machine: tlex01.testlabs.se

[PS] C:\Scripts>Get-MailboxDatabase | Get-MailboxStatistics | ?{$_.DisconnectDate} | Select-Object DisplayName,TotalItemSize

DisplayName                                TotalItemSize
-----
admins                                    13.34 MB (13,993,029 bytes)
Klas Andersson                           10.9 MB (11,425,207 bytes)
Jonas Andersson                          12.18 MB (12,770,516 bytes)
Sofie Andersson                          11.91 MB (12,488,421 bytes)
Ann Andersson                             9.449 MB (9,908,020 bytes)
Indie Andersson                           11.4 MB (11,955,851 bytes)
```

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```
Machine: tlex01.testlabs.se

ectDate} | Select-Object DisplayName,@{n="SizeMB";e={$_.TotalItemSize.value
.ToMb()}} | Sort-Object SizeMB -Descending

DisplayName                                SizeMB
-----
HealthMailbox-tlex01-DB1                    153
HealthMailbox-tlex01-DB2                    153
HealthMailbox-tlex01-001                     40
admins                                       13
Jonas Andersson                             12
Sofie Andersson                             11
testuser                                    11
Indie Andersson                             11
Klas Andersson                              10
Ann Andersson                               9
```

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```
Machine: tlex01.testlabs.se

[PS] C:\Scripts>Get-MoveRequest | ?{$_.Status -ne 'Completed'} | Get-MoveRe
questStatistics | select DisplayName,PercentComplete,BytesTransferred

DisplayName                                PercentComplete BytesTransferred
-----
admins                                    61 8.287 MB (8,690,065 b...
Discovery Search Mailbox                  25 25.67 KB (26,289 bytes)
Jonas Andersson                           65 8.333 MB (8,737,838 b...
Sofie Andersson                           25 879.3 KB (900,434 bytes)
Indie Andersson                           25 24.22 KB (24,798 bytes)
Ann Andersson                             25 24.22 KB (24,798 bytes)
Klas Andersson                             25 24.22 KB (24,798 bytes)
Test User                                10 0 B (0 bytes)
```

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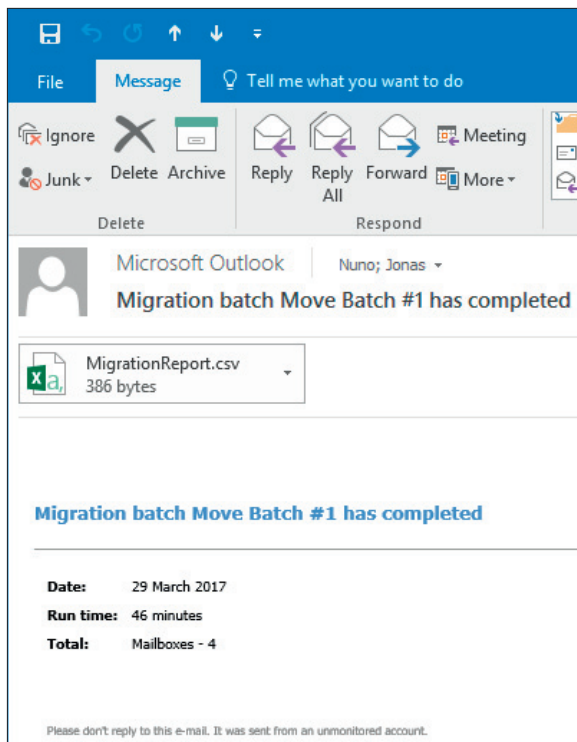
```
Machine: TLEX1.testlabs.se

[PS] C:\>Get-MigrationUser | Get-MigrationUserStatistics | FT -AutoSize

Identity                                Batch      Status  Items Synced Items Skipped
-----
admin@testlabs.se                      Move Batch #1 Syncing 15          0
jonas@testlabs.se                      Move Batch #1 Syncing 3           0
nuno@testlabs.se                       Move Batch #1 Syncing 19          0
testuser@testlabs.se                  Move Batch #1 Syncing 3           0

[PS] C:\>_
```

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```
Machine: tlex01.testlabs.se

[PS] C:\Scripts>Search-Mailbox -Identity testuser -SearchQuery "Subject:'su
ppress'" -DeleteContent -Force
WARNING: The Search-Mailbox cmdlet returns up to 10000 results per mailbox
if a search query is specified. To return more than 10000 results, use
the New-MailboxSearch cmdlet or the In-Place eDiscovery & Hold console in
the Exchange Administration Center.

RunspaceId      : 9ad249df-24c2-4509-9722-fa00715958aa
Identity        : testlabs.se/Sales/Seattle/testuser
TargetMailbox    :
Success         : True
TargetFolder     :
ResultItemsCount : 2
ResultItemsSize  : 315.4 KB (322,925 bytes)
```

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```
Machine: TLEX1.testlabs.se

[PS] C:\>Get-ComplianceSearch "Delete Spam" | Select Status, Items, SuccessResults, NumFailedSources, NumBindings, ExchangeLocation

Status      : Completed
Items       : 7
SuccessResults : {Location: nuno@testlabs.se, Item count: 4, Total size: 29436, Location: testuser@testlabs.se, Item count: 1, Total size: 10142, Location: admin@testlabs.se, Item count: 1, Total size: 10131, Location: jonas@testlabs.se, Item count: 1, Total size: 10121, Location: IT@testlabs.se, Item count: 0, Total size: 0}
NumFailedSources : 0
NumBindings    : 5
ExchangeLocation : {All}

[PS] C:\>
```

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```
Machine: tlex01.testlabs.se

[PS] C:\Scripts>Get-DisconnectedMailbox t*
```

DisplayName	MailboxGuid	Database	DisconnectReason
Test User	9cfce6f3-2151-4...	DB1	SoftDeleted
testuser	a848ea1e-9f9f-4...	DB1	SoftDeleted

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- public folders - nuno@...
- All Public Folders
- AMER
- USA
- Projects**
- Favorites

All Unread By Date Newest

Monday

Nuno

First PF Email: :)

First PF Email: <end>

Mon 17:32

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Rozdział 5: Grupy dystrybucyjne i listy adresowe

```
Machine: tlex01.testlabs.se

[PS] C:\>foreach($i in Get-DistributionGroup -ResultSize Unlimited) {
>> Get-DistributionGroupMember $i -ResultSize Unlimited |
>> Select-Object @{{n="Member";e={$_.Name}}},
>> RecipientType,
>> @{{n="Group";e={$i.Name}}}
>> }
```

Member	RecipientType	Group
Pete Dickson	UserMailbox	DL_Marketing
Emanuel Moss	UserMailbox	DL_Marketing
Lee Sanders	UserMailbox	DL_Marketing
Arlene Finley	UserMailbox	DL_Marketing
Ruben Mcleod	UserMailbox	DL_Marketing
Pete Dickson	UserMailbox	DL_Sales
Emanuel Moss	UserMailbox	DL_Sales
Lee Sanders	UserMailbox	DL_Sales

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```
users.txt - Notepad
File Edit Format View Help
afinley@testlabs.se
rmcleod@testlabs.se
emoss@testlabs.se
pdickson@testlabs.se
```

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```
Machine: tlex01.testlabs.se
[PS] C:\>Import-Csv C:\Scripts\users.csv

FirstName LastName EmailAddress
-----
Alexander Lucas alucas@testlabs.se
Alejandro Jones ajones@testlabs.se
Charlene Munoz cmunoz@testlabs.se
Alex Knowles aknowles@testlabs.se
Cassandra Peck cpeck@testlabs.se
```

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```
Machine: tlex01.testlabs.se
[PS] C:\>Get-DynamicDistributionGroupMember -Identity Legal

Name RecipientType
----
Tomas Dawson UserMailbox
John Davis MailUser
Cassandra Peck UserMailbox
```

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```
Machine: TLEX01.testlabs.se
TestDG0005 TestDG0005 Universal TestDG0005@testlabs.se
TestDG0006 TestDG0006 Universal TestDG0006@testlabs.se

Processing data..
Processing.. 25.3%
[oooooooooooooooooooo]

TestDG0012 TestDG0012 Universal TestDG0012@testlabs.se
TestDG0013 TestDG0013 Universal TestDG0013@testlabs.se
TestDG0014 TestDG0014 Universal TestDG0014@testlabs.se
TestDG0015 TestDG0015 Universal TestDG0015@testlabs.se
TestDG0016 TestDG0016 Universal TestDG0016@testlabs.se
TestDG0017 TestDG0017 Universal TestDG0017@testlabs.se
TestDG0018 TestDG0018 Universal TestDG0018@testlabs.se
TestDG0019 TestDG0019 Universal TestDG0019@testlabs.se
TestDG0020 TestDG0020 Universal TestDG0020@testlabs.se
```

203

```
Machine: tlex01.testlabs.se
[PS] C:\>(Get-DynamicDistributionGroup Marketing).recipientfilter
(((EmailAddresses -like '*marketing*') -and (HiddenFromAddressListsEnabled
-ne 'True')) -and (-not(Name -like 'SystemMailbox{*}') -and (-not(Name -l
ike 'CAS_{*}') -and (-not(RecipientTypeDetailsValue -eq 'MailboxPlan')) -an
d (-not(RecipientTypeDetailsValue -eq 'DiscoveryMailbox')) -and (-not(Recip
ientTypeDetailsValue -eq 'PublicFolderMailbox')) -and (-not(RecipientTypeDe
tailsValue -eq 'ArbitrationMailbox')) -and (-not(RecipientTypeDetailsValue
-eq 'AuditLogMailbox')) -and (-not(RecipientTypeDetailsValue -eq 'AuxAuditL
ogMailbox')) -and (-not(RecipientTypeDetailsValue -eq 'SupervisoryReviewPol
icyMailbox'))))
[PS] C:\>
```

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```
Machine: tlex01.testlabs.se

[PS] C:\>Get-Group -ResultSize Unlimited -RecipientTypeDetails NonUniversal
Group -OrganizationalUnit Sales | Where-Object {$_.GroupType -match 'global
'}

Name                                DisplayName SamAccountName
-----
Global-NonUniversal-DistributionGroup Global-NonUniversal-Dist
ributionGroup
Global-NonUniversal-SecurityGroup    Global-NonUniversal-Secu
rityGroup

[PS] C:\>Get-Group -ResultSize Unlimited -RecipientTypeDetails NonUniversal
Group -OrganizationalUnit Sales | Where-Object {$_.GroupType -match 'global
'} | Set-Group -Universal
[PS] C:\>
```

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```
Machine: tlex01.testlabs.se

[PS] C:\>$groups = Get-DistributionGroup -ResultSize Unlimited
[PS] C:\>foreach($group in $groups){
>> Get-DistributionGroupMember $group |
>> ?{$_.RecipientTypeDetails -like '*User*'} |
>> Get-User | ?{$_.UserAccountControl -match 'AccountDisabled'}}

Name                RecipientType
----
Terrance Randolph   UserMailbox
Tomas Dawson        UserMailbox
Cassandra Peck      UserMailbox

[PS] C:\>foreach($group in $groups){
>> Get-DistributionGroupMember $group |
>> ?{$_.RecipientTypeDetails -like '*User*'} |
>> Get-User | ?{$_.UserAccountControl -match 'AccountDisabled'} |
>> Remove-DistributionGroupMember $group -Confirm:$false
>> }
[PS] C:\>
```

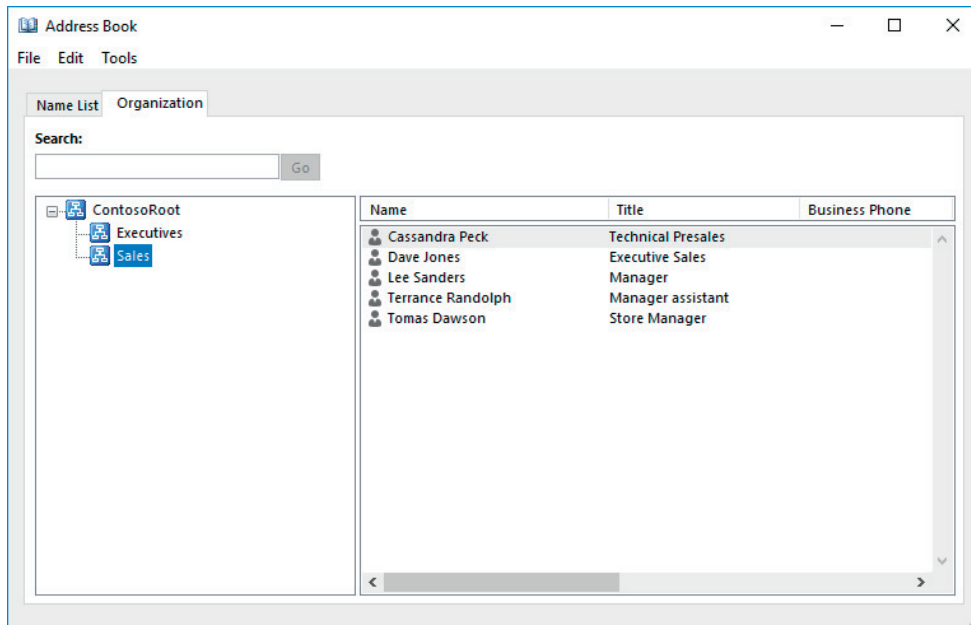
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```
GAL.csv - Notepad

File Edit Format View Help

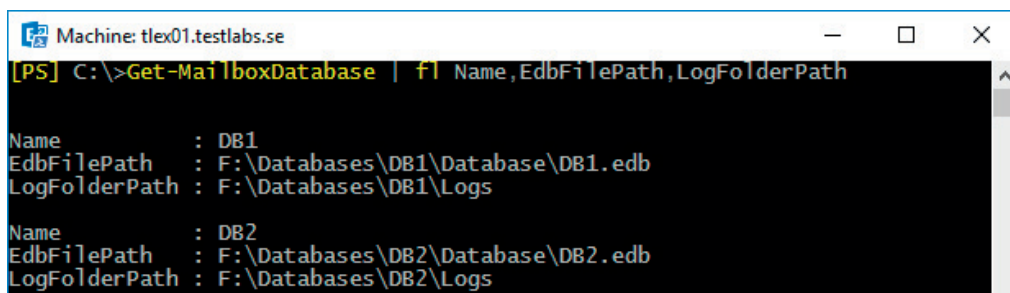
"DisplayName","EmailAddresses"
"Accounting","SMTP:Accounting@testlabs.se"
"Administrator","SMTP:Administrator@testlabs.se"
"Arlene Finley","SMTP:afinley@testlabs.se"
"Alejandro Jones","SMTP:ajones@testlabs.se"
"Alex Knowles","SMTP:aknowles@testlabs.se"
"Alice Andersson","SMTP:alice@testlabs.se"
```

220

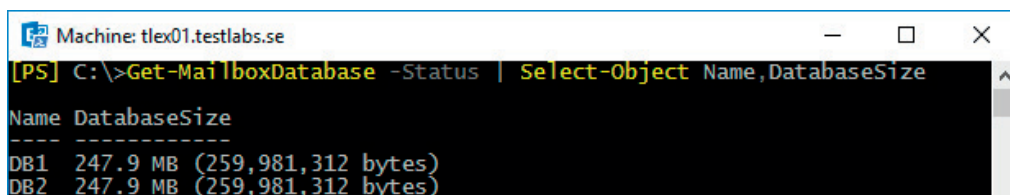


222

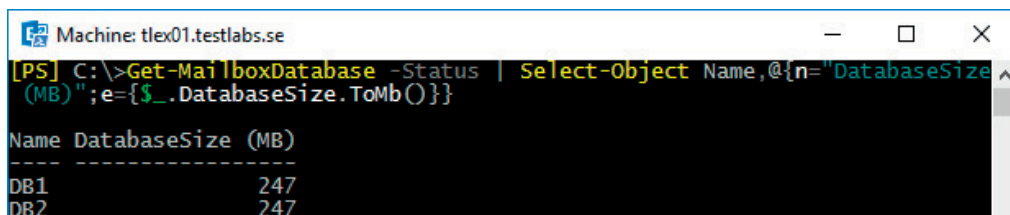
Rozdział 6: Zarządzanie bazą danych skrzynek pocztowych



232



236



237

```
Machine: tlex01.testlabs.se
[PS] C:\>Get-Mailbox -Database DB1 | Measure-Object

Count      : 16
Average    :
Sum        :
Maximum    :
Minimum    :
Property   :
```

239

```
Machine: tlex01.testlabs.se
[PS] C:\>Get-MailboxDatabase |
>> Select-Object Name,
>>     @{n="TotalMailboxes";e=@(Get-Mailbox -Database $_).count}}

Name TotalMailboxes
-----
DB1      16
DB2      13
```

240

```
Machine: tlex01.testlabs.se
[PS] C:\Scripts>.\size.ps1

Name AvgMailboxSize
-----
DB1      4.33
DB2      6.56
```

243

```
Machine: tlex01.testlabs.se
[PS] C:\>Get-MailboxDatabase -Status | Select-Object Name,LastFullBackup

Name LastFullBackup
-----
DB1  4/10/2017 11:22:10 PM
DB2  4/10/2017 11:22:10 PM
```

244

```
Machine: tlex01.testlabs.se
[PS] C:\Scripts>.\lastbackup.ps1

DaysSinceBackup Name LastFullBackup
-----
0 DB1  4/10/2017 11:24:37 PM
0 DB2  4/10/2017 11:24:37 PM
```

245

Rozdział 7: Zarządzanie dostępem klienta

```
Machine: TLEX01.testlabs.se
[PS] C:\>Get-Counter '\\tlex01\ASP.NET Apps v4.0.30319(_LM_w3svc_1_ROOT_OWA
)\Requests Executing'

Timestamp                               CounterSamples
-----
2017-05-01 22:10:29                     \\tlex01\asp.net apps v4.0.30319(_lm_w3svc_1_roo
t_owa)\requests executing :
2
```

267

```
Machine: tlex01.testlabs.se
[PS] C:\>Get-Counter '\\tlex01\MSExchange MapiHttp Emsmdb\User Count'

Timestamp                CounterSamples
-----
4/23/2017 7:43:24 PM      \\tlex01\mseexchange mapihttp emsmdb\user count :
                             1
```

268

```
Machine: tlex01.testlabs.se
[PS] C:\>Get-Counter '\\tlex01\MSExchange RpcClientAccess\User Count'

Timestamp                CounterSamples
-----
4/23/2017 7:45:30 PM      \\tlex01\mseexchange rpcclientaccess\user count :
                             1
```

268

```
Machine: TLEX01.testlabs.se
[PS] C:\>Get-ActiveUsers -Name tlex01

MAPI users  Server  Outlook  Web App users  HTTP/RPC users
-----
0 tlex01                2                0
```

270

```
Machine: TLEX01.testlabs.se
[PS] C:\>Get-MailboxServer | Get-ActiveUsers

MAPI users  Server  Outlook  Web App users  HTTP/RPC users
-----
0 TLEX01                2                0
```

270

```
Machine: TLEX01.testlabs.se
[PS] C:\>Get-MobileDevice | ?{$_.DeviceAccessState -eq 'Quarantined'} | fl
UserDisplayName,DeviceAccessState,DeviceID

UserDisplayName : testlabs.se/Sales/Lee Sanders
DeviceAccessState : Quarantined
DeviceId : PQI18009516R120JE6A3DU4BD0
```

272

```
Machine: TLEX01.testlabs.se
[PS] C:\>Get-MobileDeviceStatistics -Mailbox lsanders | select LastSuccessS
ync,Status,DevicePhoneNumber,DeviceType

LastSuccessSync      Status DevicePhoneNumber DeviceType
-----
2017-05-01 19:38:46 DeviceOk                iPhone
```

273

Rozdział 8: Zarządzanie serwerami transportu

```
Machine: TLEX1.testlabs.se

[PS] C:\>$comparison

InputObject      SideIndicator
-----
172.28.125.248 =>
172.28.125.247 =>
172.28.125.245 <=
172.28.125.240 <=
172.28.125.238 <=

[PS] C:\>_
```

291

```
Machine: TLEX1.testlabs.se

InputObject      Connector
-----
172.28.125.248 EX2\Relay
172.28.125.247 EX2\Relay
172.28.125.245 EX1\Relay
172.28.125.240 EX1\Relay
172.28.125.238 EX1\Relay

[PS] C:\>_
```

292

```
Machine: TLEX1.testlabs.se

[PS] C:\>Get-SystemMessage

Identity      Text
-----
en\Internal\5.1.1 The mailbox you tried to send an e-mail message
to does not exist. Please visit the <a
href='http://support.contoso.com'>help desk
site</a> for assistance

[PS] C:\>_
```

295

```
Machine: TLEX1.testlabs.se

[PS] C:\>Get-TransportService TLEX1 | FL ConnectivityLog*

ConnectivityLogEnabled           : True
ConnectivityLogMaxAge            : 30.00:00:00
ConnectivityLogMaxDirectorySize  : 1000 MB (1,048,576,000 bytes)
ConnectivityLogMaxFileSize       : 10 MB (10,485,760 bytes)
ConnectivityLogPath              : C:\Program Files\Microsoft\Exchange Serv
                                er\V15\TransportRoles\Logs\Hub\Connectiv
                                ity

[PS] C:\>_
```

297

```
Machine: TLEX1.testlabs.se

[PS] C:\>Get-TransportService TLEX1 | FL ReceiveProtocol*

ReceiveProtocolLogMaxAge         : 30.00:00:00
ReceiveProtocolLogMaxDirectorySize : 250 MB (262,144,000 bytes)
ReceiveProtocolLogMaxFileSize    : 10 MB (10,485,760 bytes)
ReceiveProtocolLogPath           : C:\Program Files\Microsoft\Exchange S
                                erver\V15\TransportRoles\Logs\Hub\Pro
                                tocolLog\SmtpReceive

[PS] C:\>_
```

299

```
Machine: TLEX1.testlabs.se

[PS] C:\>Get-TransportService TLEX1 | FL SendProtocol*

SendProtocolLogMaxAge           : 30.00:00:00
SendProtocolLogMaxDirectorySize : 250 MB (262,144,000 bytes)
SendProtocolLogMaxFileSize       : 10 MB (10,485,760 bytes)
SendProtocolLogPath              : C:\Program Files\Microsoft\Exchange Serv
                                er\V15\TransportRoles\Logs\Hub\ProtocolL
                                og\SmtpSend

[PS] C:\>_
```

299

FileHomeInsertPage LayoutFormulasDataReviewViewAdd-insPower PivotTeamTell me what you want to do										
From Access		From Web	From Text	From Other Sources	Existing Connections	New Query				
Get External Data		Get & Transform		Connections		Sort & Filter				
Show Queries		Refresh All		Connections		Sort & Filter				
From Table		Recent Sources		Properties		Filter				
Edit Links		Sort		Clear		Reapply				
Advanced		Filter		Advanced		Advanced				
B9										
08D47B6BE12F53F2										
A	B	C	D	E						
1	#Software: Microsoft Exchange Server									
2	#Version: 15.0.0.0									
3	#Log-type: Transport Connectivity Log									
4	#Date: 2017-04-04T15:03:37.308Z									
5	#Fields: date-time	session	source	Destination	direction	description				
6	2017-04-04T15:03:36.168Z		Transport		*	service started; MaxConcurrentSubmissions=8				
7	2017-04-04T15:05:41.611Z	08D47B6BE12F53F2	SMTP	internalproxy	+	Undefined 00000000-0000-0000-0000-00000000				
8	2017-04-04T15:05:41.655Z	08D47B6BE12F53F2	SMTP	internalproxy	>	TLEX1.testlabs.se[192.168.1.61]				
9	2017-04-04T15:05:41.660Z	08D47B6BE12F53F2	SMTP	internalproxy	>	Established connection to 192.168.1.61				
10	2017-04-04T15:05:42.012Z	08D47B6BE12F53F2	SMTP	internalproxy	-	Messages: 1 Bytes: 4466 ()				
11	2017-04-04T15:07:45.876Z	08D47B6BE12F53F8	SMTP	client proxy	+	Client proxy session for HealthMailboxb122ff3				
12	2017-04-04T15:07:45.876Z	08D47B6BE12F53F8	SMTP	client proxy	>	TLEX1.testlabs.se[192.168.1.61]				
13	2017-04-04T15:07:45.877Z	08D47B6BE12F53F8	SMTP	client proxy	>	Established connection to 192.168.1.61				
14	2017-04-04T15:07:45.934Z	08D47B6BE12F53F8	SMTP		-	Messages: 0 Bytes: 0 (Remote error from proxy)				

301

```
Machine: TLEX1.testlabs.se

[PS] C:\>$results | Measure-Object -Property TotalBytes -Sum | Select-Object
t @{n="Total Items";e={$_.Count}}, @{n="Total Item Size (MB)";e={[math]::Round($_.Sum /1mb,2)}}

Total Items Total Item Size (MB)
-----
7484 802.76

[PS] C:\>
```

307

```
Machine: TLEX1.testlabs.se

[PS] C:\>$domains | Group | Sort Count -Descending | FT Name, Count -Auto

Name Count
----
gmail.com 2170
hotmail.com 673
jpmorgan.com 309
yahoo.com 231
me.com 157
barclays.com 87

[PS] C:\>
```

308

```
Machine: TLEX1.testlabs.se

SourceContext : MDB:02176f42-32bd-4e99-b5fc-bfe79ccf12ce,
Mailbox:7a126ca0-9acc-49a5-8119-ab4e8087b70b, Event:7025,
MessageClass:IPM.Note,
CreationTime:2017-04-04T16:44:40.067Z, ClientType:MOMT, Su
bmissionAssistant:MailboxTransportSubmissionEmailAssistant

[PS] C:\>_
```

309

```
Machine: TLEX1.testlabs.se

[PS] C:\>Get-Queue -Server TLEX1

Identity      DeliveryType      Status MessageCount Velocity RiskLe
vel
-----
TLEX1\3       SmtDeliveryToMailbox Ready 0          0      Normal
TLEX1\4       SmtDeliveryToMailbox Ready 0          0      Normal
TLEX1\Submission Undefined        Ready 1          -1      Normal

[PS] C:\>_
```

311

```
Machine: TLEX1.testlabs.se

[PS] C:\>Get-AgentLog | ? {$_.Agent -eq 'Sender Filter Agent'}

RunspaceId      : 71b361bb-64ca-4892-88be-1597da8d3315
Timestamp       : 04/04/2017 18:46:38
SessionId       : 08D47B825645C668
IPAddress       : 192.168.1.2
MessageId       :
P1FromAddress    : spammer@nunomota.pt
P2FromAddresses : {}
Recipients      : {}
Agent           : Sender Filter Agent
Event           : OnMailCommand
Action          : RejectCommand
SmtResponse     : 554 5.7.105 SenderFilterAgent; Sender denied as
sender's email address is on SenderFilterConfig list
Reason          : ExactMatch
ReasonData      : spammer@nunomota.pt
Diagnostics     :
NetworkMsgID    : 00000000-0000-0000-0000-000000000000
TenantID        : 00000000-0000-0000-0000-000000000000
Directionality  : Undefined

[PS] C:\>_
```

318

```
Machine: TLEX1.testlabs.se

[PS] C:\>Get-SendConnector

Identity                                     AddressSpaces Enabled
-----
EdgeSync - Default-First-Site-Name to Internet {smtp*;100} True
EdgeSync - Inbound to Default-First-Site-Name {smtp--;100} True

[PS] C:\>_
```

324

```
Machine: TLEX1.testlabs.se

[PS] C:\>Test-EdgeSynchronization

RunspaceId           : 7851c5ce-c0b2-4d77-93ce-71913c90c75f
SyncStatus           : Normal
UtcNow               : 07/04/2017 13:55:57
Name                 : EDGE
LeaseHolder          : CN=TLEX1,CN=Servers,CN=Exchange
                     : Administrative Group
                     : (FYDIBOHF23SPDLT),CN=Administrative
                     : Groups,CN=TestLabs,CN=Microsoft Exchange,CN=
                     : Services,CN=Configuration,DC=testlabs,DC=se
LeaseType            : Option
FailureDetail        :
LeaseExpiryUtc       : 07/04/2017 14:25:25
LastSynchronizedUtc  : 07/04/2017 13:55:25
TransportServerStatus : Skipped
TransportConfigStatus : Skipped
AcceptedDomainStatus : Skipped
RemoteDomainStatus   : Skipped
SendConnectorStatus   : Skipped
MessageClassificationStatus : Skipped
RecipientStatus       : Skipped
CredentialRecords     : Number of credentials 3
CookieRecords         : Number of cookies 2

[PS] C:\>_
```

326

Rozdział 9: Bezpieczeństwo w środowisku Exchange

```
Machine: TLEX1.testlabs.se

[PS] C:\>Get-MailboxPermission admin | Where-Object {$_.AccessRights -match "FullAccess"}

Identity          User                AccessRights      IsInherited Deny
-----
testlabs.se/Users... NT AUTHORITY\SELF   {FullAccess...    False      False
testlabs.se/Users... TESTLABS\it.servi... {FullAccess}      False      False
testlabs.se/Users... TESTLABS\Domain A... {FullAccess}      True       True
testlabs.se/Users... TESTLABS\Enterpri... {FullAccess}      True       True
testlabs.se/Users... TESTLABS\admin      {FullAccess}      True       True
testlabs.se/Users... TESTLABS\Organiza... {FullAccess}      True       True
testlabs.se/Users... NT AUTHORITY\SYSTEM {FullAccess}      True       False
testlabs.se/Users... TESTLABS\Domain A... {FullAccess...    True       False
testlabs.se/Users... TESTLABS\Enterpri... {FullAccess...    True       False
testlabs.se/Users... TESTLABS\admin      {FullAccess...    True       False
testlabs.se/Users... TESTLABS\Organiza... {FullAccess...    True       False
testlabs.se/Users... TESTLABS\Exchange... {FullAccess...    True       False
testlabs.se/Users... TESTLABS\Exchange... {FullAccess...    True       False
testlabs.se/Users... TESTLABS\auditor    {FullAccess...    True       False

[PS] C:\>_
```

333

```
Machine: TLEX1.testlabs.se

[PS] C:\>Get-MailboxPermission admin | Where-Object {(($_.AccessRights -match "FullAccess") -and ($_.User -notmatch "SELF") -and ($_.IsInherited -eq $False))} | FT User, AccessRights, IsInherited -AutoSize

User                AccessRights IsInherited
-----
TESTLABS\it.servicedesk {FullAccess} False

[PS] C:\>_
```

333

```
Machine: TLEX1.testlabs.se

[PS] C:\>Get-ManagementRoleAssignment -RoleAssignee 'Server Management' | Select Role

Role
----
Database Copies
Databases
Exchange Connectors
Exchange Server Certificates
Exchange Servers
Exchange Virtual Directories
Monitoring
POP3 And IMAP4 Protocols
Receive Connectors
Transport Queues

[PS] C:\>_
```

340


```
Machine: TLEX1.testlabs.se

[PS] C:\>Get-ManagementRoleEntry "Exchange Servers\*"

Name                                     Role                                     Parameters
----                                     -
Write-AdminAuditLog                     Exchange Servers                       {Comment, Conf...
Update-OfflineAddressBook              Exchange Servers                       {Confirm, Debu...
Update-ExchangeHelp                   Exchange Servers                       {Force, Verbose}
Set-UMService                          Exchange Servers                       {Confirm, Debu...
Set-UMCallRouterSettings               Exchange Servers                       {Confirm, Debu...
Set-TransportService                  Exchange Servers                       {ActiveUserSta...
Set-TransportServer                    Exchange Servers                       {ActiveUserSta...
```

340

```
Machine: TLEX1.testlabs.se

[PS] C:\>Get-ManagementRole -Cmdlet Set-User -CmdletParameters Phone

Name                RoleType
----                -
Mail Recipients     MailRecipients
User Options        UserOptions
MyContactInformation MyContactInformation
MyAddressInformation MyContactInformation

[PS] C:\>
```

347

```
Machine: TLEX1.testlabs.se

[PS] C:\>Get-RoleAssignmentPolicy "Default Role Assignment Policy" | FL AssignedRoles

AssignedRoles : {MyTeamMailboxes, MyDistributionGroupMembership, My
Custom Apps, My Marketplace Apps, My ReadWriteMailbox
Apps, MyBaseOptions, MyContactInformation,
MyTextMessaging, MyVoiceMail}

[PS] C:\>
```

348

```
Machine: TLEX1.testlabs.se

[PS] C:\>Get-RbacDiagnosticInfo -UserName nuno
WARNING: User name is nuno

Name                               Value
----                               -
CombinedScripts                    {GetAppMarketplaceUrl, InstallApp}
UserSid                           S-1-5-21-1411203154-1084355696-209206089...
TokenSids                         {S-1-5-21-1411203154-1084355696-209206089...
RbacUserId                        TESTLABS\nuno
AllRoleEntries                    {RoleEntry: GetAppMarketplaceUrl ...
IdentityName                      testlabs.se/Users/Nuno
MachineName                      TLEX1
CombinedCmdlets                   {(Microsoft.Exchange.Management.PowerShe...

[PS] C:\>
```

351

```
Machine: TLEX1.testlabs.se

[PS] C:\>(Get-RbacDiagnosticInfo -UserName nuno).CombinedCmdlets | ? {$_.Name -like "Set-*"} | Select Name, Parameters
WARNING: User name is nuno

Name                               Parameters
----                               -
Set-CalendarNotification           {CalendarUpdateNotification, Calendar...
Set-CalendarProcessing             {AddAdditionalResponse, AdditionalRes...
Set-CASMailbox                    {ActiveSyncDebugLogging, ActiveSyncSu...
Set-ConsumerGroup                 {Confirm, Identity, MembersToAdd, Wha...
Set-ConsumerMailbox               {Confirm, DefaultFromAddress, Deliver...
```

351

```
Machine: TLEX1.testlabs.se

[PS] C:\>((Get-RbacDiagnosticInfo -UserName nuno).CombinedCmdlets | ? {$_.Name -eq "Set-CASMailbox"}).Parameters
WARNING: User name is nuno
ActiveSyncDebugLogging
ActiveSyncSuppressReadReceipt
Confirm
ErrorAction
ErrorVariable
Identity
ImapForceICalForCalendarRetrievalOption
ImapMessagesRetrievalMimeFormat
ImapSuppressReadReceipt
ImapUseProtocolDefaults
OutBuffer
OutVariable
PopForceICalForCalendarRetrievalOption
PopMessagesRetrievalMimeFormat
PopSuppressReadReceipt
PopUseProtocolDefaults
ShowGalAsDefaultView
WarningAction
WarningVariable
WhatIf
[PS] C:\>
```

352

```
Machine: TLEX1.testlabs.se

[PS] C:\>(Get-RbacDiagnosticInfo -UserName nuno).AllRoleEntries | ? {$_.Name -eq "Set-CASMailbox"}
WARNING: User name is nuno
RoleEntry: (Microsoft.Exchange.Management.PowerShell.E2010) Set-CASMailbox
-ActiveSyncDebugLogging -ActiveSyncSuppressReadReceipt -Confirm -ErrorAction
n -ErrorVariable -Identity -ImapForceICalForCalendarRetrievalOption -ImapMe
ssagesRetrievalMimeFormat -ImapSuppressReadReceipt -ImapUseProtocolDefaults
-OutBuffer -OutVariable -PopForceICalForCalendarRetrievalOption -PopMessag
esRetrievalMimeFormat -PopSuppressReadReceipt -PopUseProtocolDefaults -Show
GalAsDefaultView -WarningAction -WarningVariable -WhatIf
RoleAssignmentId: CN=MyBaseOptions-Default Role Assignment Policy,CN=Role A
ssignments,CN=RBAC,CN=TestLabs,CN=Microsoft Exchange,CN=Services,CN=Configu
ration,DC=testlabs,DC=se
Name: MyBaseOptions-Default Role Assignment Policy
Role: CN=MyBaseOptions,CN=Roles,CN=RBAC,CN=TestLabs,CN=Microsoft Exchange,C
N=Services,CN=Configuration,DC=testlabs,DC=se
RoleAssignmentDelegationType: Regular
Enabled: True
RoleAssigneeType: RoleAssignmentPolicy
Assignee: CN=Default Role Assignment Policy,CN=Policies,CN=RBAC,CN=TestLabs
,CN=Microsoft Exchange,CN=Services,CN=Configuration,DC=testlabs,DC=se
RecipientReadScope: Self
ConfigReadScope: OrganizationConfig
RecipientWriteScope: Self
ConfigWriteScope: OrganizationConfig
[PS] C:\>
```

353

```
Machine: TLEX2.testlabs.se

[PS] C:\>Get-ExchangeCertificate

Thumbprint                                     Services    Subject
-----
1A8A88851400B072FAED6EDB246AC6651911C31A    IP.WS..    CN=TLEX2
E0E8C60AEAB698214FB500579BA0D47DB8525758    .....    CN=WMSvc-SHA2-TLEX2
9C5CBB122ECD7338A2076127D2216F518CF1B9B7    .....    CN=mail.testlabs.s...
B8C6503355E26804EDE7CBA27EB7E77E6DC03B3A    ....S..    CN=Microsoft Excha...
```

[PS] C:\>_

357

```
Machine: TLEX2.testlabs.se

[PS] C:\>Get-ExchangeCertificate | FL Thumbprint, CertificateDomains, Servi
ces, IsSelfSigned

Thumbprint      : 1A8A88851400B072FAED6EDB246AC6651911C31A
CertificateDomains : {TLEX2, TLEX2.testlabs.se}
Services        : IMAP, POP, IIS, SMTP
IsSelfSigned     : True

Thumbprint      : E0E8C60AEAB698214FB500579BA0D47DB8525758
CertificateDomains : {WMSvc-SHA2-TLEX2}
Services        : None
IsSelfSigned     : True

Thumbprint      : 9C5CBB122ECD7338A2076127D2216F518CF1B9B7
CertificateDomains : {mail.testlabs.se, autodiscover.testlabs.se}
Services        : None
IsSelfSigned     : False
```

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Inbox

All

Today

admin

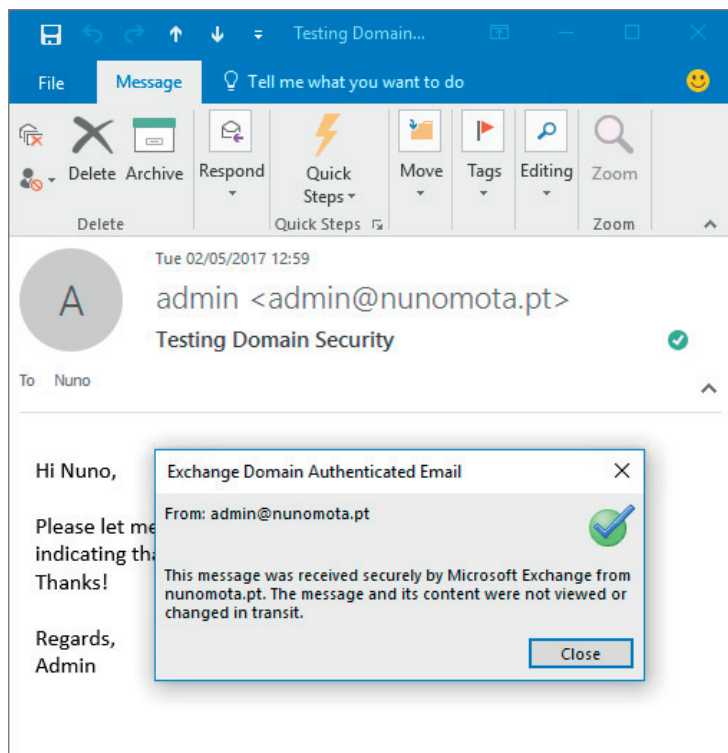
Testing Domain Security

Hi Nuno, Please let me know if this message

12:59

Last Month

366



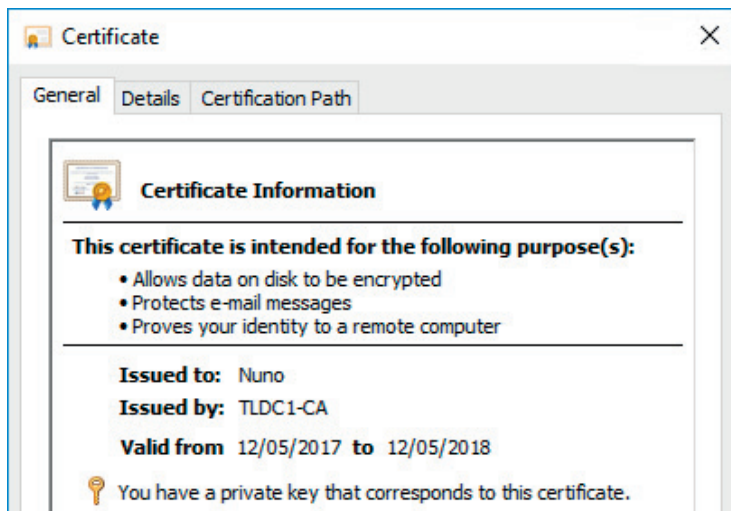
366

```

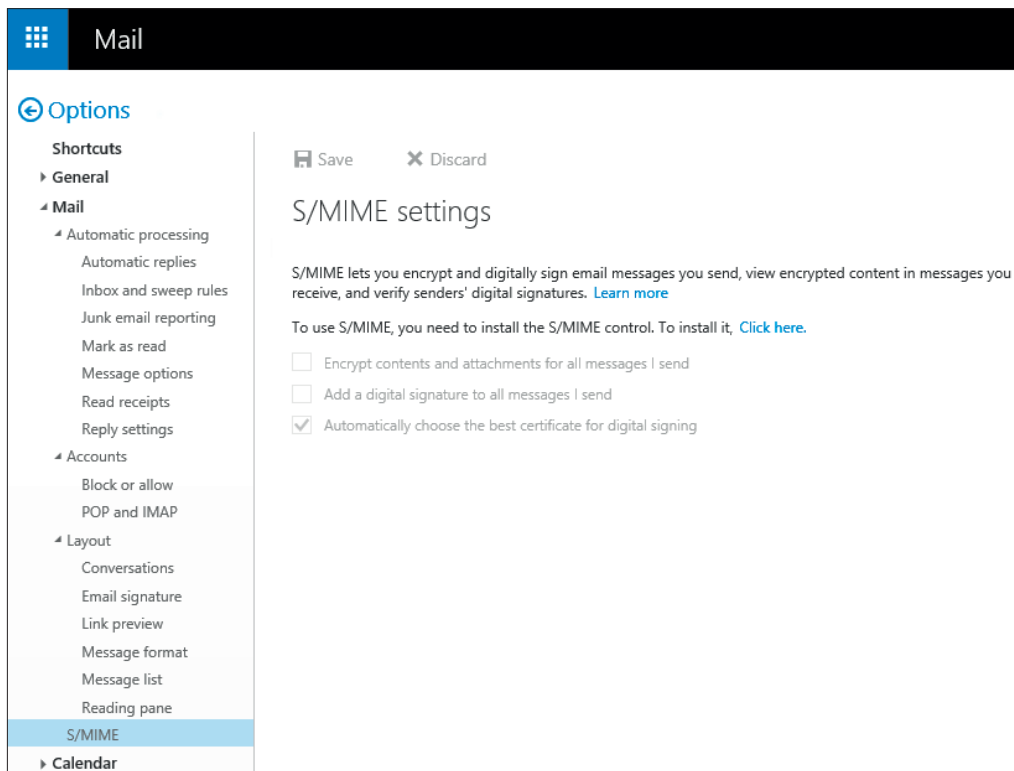
+,,
>,"220 mail.nunomota.pt Microsoft ESMTP MAIL Service ready at Tue, 2 May 2017 13:24:00
<,EHLO tlex1.testlabs.se,
>,"250 mail.nunomota.pt Hello [192.168.1.161] SIZE 37748736 PIPELINING DSN ENHANCEDST
<,"STARTTLS,
>,"220 2.0.0 SMTP server ready,
>,"CN=mail.nunomota.pt, OU=IT, O=Nuno Mota, L=London, C=GB CN=DigiCert SHA2 Secure S
>,"CN=TLEX1 CN=TLEX1 17A753A2E0CB0C9D41EEBFC4ED83EDA8 7D099306C5F30E401CF42B0DC3EDF41
>,"TLS protocol SP_PROT_TLS1_2_SERVER negotiation succeeded using bulk encryption a
<,"EHLO tlex1.testlabs.se,
>,"CN=TLEX1 CN=TLEX1 17A753A2E0CB0C9D41EEBFC4ED83EDA8 7D099306C5F30E401CF42B0DC3EDF41
>,"TlsDomainCapabilities='None'; Status='Success'; Domain=''
>,"CN=TLEX1 CN=TLEX1 17A753A2E0CB0C9D41EEBFC4ED83EDA8 7D099306C5F30E401CF42B0DC3EDF41
>,"TlsDomainCapabilities='None'; Status='Success'; Domain=''
>,"250 mail.nunomota.pt Hello [192.168.1.161] SIZE 37748736 PIPELINING DSN ENHANCEDST
<,"MAIL FROM:<admin@testlabs.se> SIZE=5346,
>,"CN=TLEX1 CN=TLEX1 17A753A2E0CB0C9D41EEBFC4ED83EDA8 7D099306C5F30E401CF42B0DC3EDF41
>,"SMTPSubmit AcceptRoutingHeaders,Set Session Permissions
>,"SMTPSubmit AcceptRoutingHeaders,Set Session Permissions
>,"08D491548CAD3D49;2017-05-02T12:24:03.469Z;1,receiving message
>,"RCPT TO:<admin@nunomota.pt>,
>,"250 2.1.0 Sender OK,
>,"250 2.1.5 Recipient OK,
<,"BDAT 1702 LAST,
>,"Proxy destination(s) obtained from OnProxyInboundMessage event
>,"250 2.6.0 <0dff7003d376447880ed4b890f4cf7bf@testlabs.se> [InternalId=154189325928;
<,"QUIT,
-,,Local

```

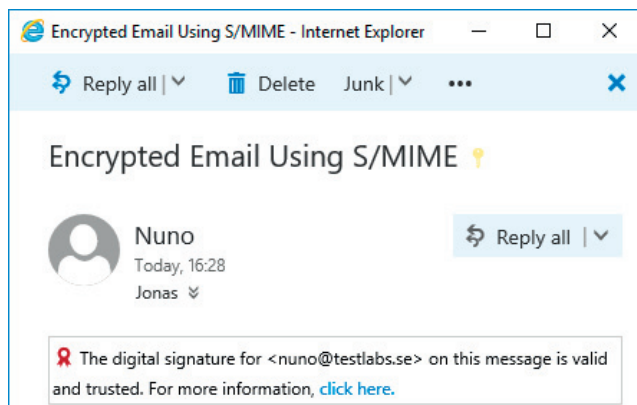
367



369



370



372

Rozdział 10: Zgodność i rejestrowanie inspekcji

```
Machine: TLEX1.testlabs.se
[PS] C:\>Get-Mailbox nuno | Format-List *archive*

ArchiveDatabase           : DB1
ArchiveGuid               : b5d3eef1-c097-46d3-8eb5-3ae447dd0589
ArchiveName               : {In-Place Archive - Nuno}
JournalArchiveAddress     :
ArchiveQuota              : 100 GB (107,374,182,400 bytes)
ArchiveWarningQuota       : 90 GB (96,636,764,160 bytes)
ArchiveDomain             :
ArchiveStatus             : None
ArchiveState              : Local
AutoExpandingArchiveEnabled : False
DisabledArchiveDatabase   :
DisabledArchiveGuid       : 00000000-0000-0000-0000-000000000000
ArchiveRelease            :
```

384


```
Machine: TLEX1.testlabs.se
[PS] C:\>Get-RetentionPolicyTag | FT Name, Type, RetentionAction

Name                                     Type      RetentionAction
----
Personal 1 year move to archive         Personal  MoveToArchive
Default 2 year move to archive          All      MoveToArchive
Personal 5 year move to archive         Personal  MoveToArchive
Personal never move to archive          Personal  MoveToArchive
1 Week Delete                           Personal DeleteAndAllowRecovery
1 Month Delete                           Personal DeleteAndAllowRecovery
6 Month Delete                           Personal DeleteAndAllowRecovery
1 Year Delete                            Personal DeleteAndAllowRecovery
5 Year Delete                            Personal DeleteAndAllowRecovery
Never Delete                             Personal DeleteAndAllowRecovery
Recoverable Items 14 days move to archive RecoverableItems MoveToArchive


[PS] C:\>_
```

388

Account Information

 nuno@testlabs.se
Microsoft Exchange


+ Add Account

 Account Settings ▾

Account Settings

Change settings for this account or set up more connections.

- Access this account on the web.
<https://mail.testlabs.se/owa/>
- You are currently on in-place hold, please visit the provided URL
[More Information](#)
- [Get the Outlook app for iPhone, iPad, Android, or Windows 10 Mobile.](#)


[Change](#)

397

```
Machine: TLEX1.testlabs.se

[PS] C:\>Get-ComplianceSearch "Search All - Project X" | Select Status, Items, SuccessResults, NumFailedSources, NumBindings, ExchangeLocation

Status      : Completed
Items       : 47
SuccessResults : {Location: admin@testlabs.se, Item count: 11, Total size: 83281, Location: nuno@testlabs.se, Item count: 8, Total size: 68760, Location: ceo@testlabs.se, Item count: 8, Total size: 63432, Location: it.servicedesk@testlabs.se, Item count: 5, Total size: 45315, Location: auditor@testlabs.se, Item count: 5, Total size: 45075, Location: testuser@testlabs.se, Item count: 5, Total size: 45060, Location: jonas@testlabs.se, Item count: 5, Total size: 44950}
NumFailedSources : 0
NumBindings      : 7
ExchangeLocation : {All}

[PS] C:\>
```

403

```
Machine: TLEX1.testlabs.se

[PS] C:\>New-DlpPolicy -Name "Block Outbound Credit Card Details" -Template "U.K. Financial Data" -Mode Enforce -State Enabled
WARNING: The rule contains NotifySender action with an option that may reject the message. In case the message gets rejected, other actions won't be applied.
[PS] C:\>
```

405

```
Machine: TLEX1.testlabs.se



[PS] C:\>Get-DlpPolicyTemplate "U.K. Financial Data" | FL Description

Description : Helps detect the presence of information commonly
              considered to be financial information in United Kingdom,
              including information like credit card, account
              information, and debit card numbers. Use of this policy
              does not ensure compliance with any regulation. After your
              testing is complete, make the necessary configuration
              changes in Exchange so the transmission of information
              complies with your organization's policies. Examples
              include configuring TLS with known business partners or
              adding more restrictive transport rule actions, such as
              adding rights protection to messages that contain this type
              of data.

[PS] C:\>
```

406

Policy Tip: This message appears to contain sensitive information. Make sure all recipients are authorized to receive it.

 Send	To...	<u>admin@nunomota.pt</u>
	Cc...	
	Subject	Payment Details
Attached	 Credit Card Details.txt 552 bytes	

407


```
Machine: TLEX1.testlabs.se

[PS] C:\>Get-MessageTrackingLog -ResultSize Unlimited -Sender nuno@testlabs
.se -Recipients admin@nunomota.pt -MessageSubject "Payment Details" -EventI
d AGENTINFO | FL EventData


EventData : {[AMA, SUM|v=0|action=|error=|atch=1], [AMA,
              EV|engine=M|v=0|sig=1.245.65.0|name=|file=], [TRA, ETRP|ruleId
              =60b7d72a-d5f8-4240-a99a-f6fa0c2cb980|st=2017-05-25T12:43:32.0
              000000Z|ExecW=5|ExecC=0|Conditions=MRP,M.S,1], [TRA, DC|dcid=5
              0842eb7-edc8-4019-85dd-5a5c1f2bb085 |count=3|ucount=3|conf=85],
              [TRA, DC|dcid=0e9b3178-9678-47dd-a509-37222ca96b42|count=2|uc
              ount=2|conf=85], [TRA,
              ETR |ruleId=7dce9087-316a-497c-8700-74a9ff1c943b|st=25/05/2017
              12:43:32 |action=SetAuditSeverity|action=NotifySender|sev=2 |mod
              e=Enforce|dlpId=799cacab-fb90-47d7-addb-f6e74c8d0019|dcId=5084
              2eb7-edc8-4019-85dd-5a5c1f2bb085|dcId=0e9b3178-9678-47dd-a509-
```

407

Policy Tip: This message can't be sent because it appears to contain sensitive information.

'admin@nunomota.pt'  isn't authorized to receive this type of information.

To send this message without removing the information, you must first click override.



Send

To...

Cc...

Subject

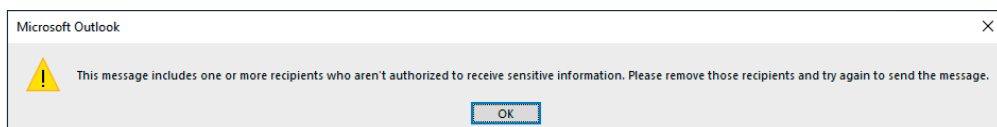
Payment Details

Attached

'admin@nunomota.pt'

Credit Card Details.txt
2 KB

407



408

Delivery has failed to these recipients or groups:

'admin@nunomota.pt' (admin@nunomota.pt)

Unable to deliver your message. You can override this policy by adding the word 'override' to the subject line.

Your message wasn't delivered because the email admin for the organization 'testlabs.se' created an email rule restriction. Please contact the email admin for that organization and ask them to remove or update the rule restriction.

For more information about this error, see [DSN code 5.7.1 in Exchange Online - Office 365](#).

408

```
Machine: TLEX1.testlabs.se

[PS] C:\>Get-MessageTrackingLog -ResultSize Unlimited -Recipients admin@nunomota.pt -EventId FAIL | FL Source, SourceContext, RecipientStatus

Source          : AGENT
SourceContext    : Transport Rule Agent
RecipientStatus  : {[LED=550 5.7.1 TRANSPORT.RULES.RejectMessage; the message was rejected by organization policy];{MSG=};{FQDN=};{IP=};{LRT=}}
```

408

```
Machine: TLEX1.testlabs.se

[PS] C:\>Get-TransportRule

Name                                                    State    Mode    Priority
-----
U.K. Financial: Allow override                        Enabled Enforce 0
U.K. Financial: Scan email sent outside - low count   Enabled Enforce 1
U.K. Financial: Scan email sent outside - high count  Enabled Enforce 2
U.K. Financial: Scan text limit exceeded              Enabled Enforce 3
U.K. Financial: Attachment not supported              Enabled Enforce 4

[PS] C:\>
```

409

```
Machine: TLEX1.testlabs.se

[PS] C:\>(Get-TransportRule "U.K. Financial: Scan email sent outside - high
count").MessageContainsDataClassifications
{id:"Credit Card Number", guid:"50842eb7-edc8-4019-85dd-5a5c1f2bb085", display
Name:"Credit Card Number", minCount:10, maxCount:Infinity, minConfidence:Re
commended, maxConfidence:100}
{id:"EU Debit Card Number", guid:"0e9b3178-9678-47dd-a509-37222ca96b42", display
Name:"EU Debit Card Number", minCount:10, maxCount:Infinity, minConfidence:Re
commended, maxConfidence:100}
{id:"SWIFT Code", guid:"cb2ab58c-9cb8-4c81-baf8-a4e106791df4", displayName:
"SWIFT Code", minCount:10, maxCount:Infinity, minConfidence:Recommended, max
Confidence:100}

[PS] C:\>
```

409

```
Machine: TLEX1.testlabs.se

[PS] C:\>Get-AdminAuditLogConfig

RunspaceId                : 7a6dc68c-a437-429a-87c1-06c2e5354e44
AdminAuditLogEnabled       : True
LogLevel                   : Verbose
TestCmdletLoggingEnabled   : False
AdminAuditLogCmdlets       : {*}
AdminAuditLogParameters    : {*}
AdminAuditLogExcludedCmdlets : {}
AdminAuditLogAgeLimit      : 90.00:00:00
LoadBalancerCount          : 3
RefreshInterval            : 10
```

411

```
Machine: TLEX1.testlabs.se

[PS] C:\>Search-AdminAuditLog -Cmdlets Add-MailboxPermission | Where {$_.ObjectModified -match "servicedesk"} | Select Caller -ExpandProperty CmdletParameters

Caller          Name          Value
-----
admin@testlabs.se Identity      it.servicedesk
admin@testlabs.se AccessRights   FullAccess
admin@testlabs.se InheritanceType All
admin@testlabs.se User          nuno

[PS] C:\>_
```

414

```
Machine: TLEX1.testlabs.se

[PS] C:\>$logs = Search-AdminAuditLog | Select-Object -First 10
[PS] C:\>$logs[0]

RunspaceId      : 7a6dc68c-a437-429a-87c1-06c2e5354e44
ObjectModified   : testlabs.se/Users/Auditor
CmdletName       : Set-Mailbox
CmdletParameters : {Identity, HiddenFromAddressListsEnabled}
ModifiedProperties : {HiddenFromAddressListsEnabled,
                      ReadOnlyAddressListMembership,
                      HiddenFromAddressListsValue, AddressListMembership}
Caller          : admin@testlabs.se
ExternalAccess   : False
Succeeded       : True
Error           :
RunDate         : 19/05/2017 12:38:45
OriginatingServer : TLEX1 (15.01.1034.013)
Identity        : AAMkAGU2MGFKOGNjLTg4MzAtNGRlOC1hMmJhLTM3ZDE2YzE1NzY1YgBGAAAAAADgQ3W050PrRq7G47YPbiH1BwAhn13+tcBXRLEkyLmBXI80AAAAZrWGAAAhnl3+tcBXRLEkyLmBXI80AAAtXINoAAA=
IsValid         : True
ObjectState     : New

[PS] C:\>_
```

415

```
Machine: TLEX1.testlabs.se

[PS] C:\>$logs[0].ModifiedProperties | FL

Name      : HiddenFromAddressListsEnabled
NewValue  : True
OldValue  : False
```

415

```
Machine: TLEX1.testlabs.se

[PS] C:\>Set-Mailbox CEO -AuditEnabled $True
[PS] C:\>Get-Mailbox CEO | Select Audit*

AuditEnabled      : True
AuditLogAgeLimit  : 90.00:00:00
AuditAdmin        : {Update, Move, MoveToDeletedItems, SoftDelete,
                    HardDelete, FolderBind, SendAs, SendOnBehalf, Create}
AuditDelegate     : {Update, SoftDelete, HardDelete, SendAs, Create}
AuditOwner        : {}

[PS] C:\>_
```

417

```
Machine: TLEX1.testlabs.se

[PS] C:\>Set-Mailbox CEO -AuditAdmin @{Add="Copy"} -AuditDelegate @{Add="MoveToDeletedItems"}
[PS] C:\>Get-Mailbox CEO | Select Audit*

AuditEnabled      : True
AuditLogAgeLimit  : 90.00:00:00
AuditAdmin        : {Update, Copy, Move, MoveToDeletedItems, SoftDelete,
                    HardDelete, FolderBind, SendAs, SendOnBehalf, Create}
AuditDelegate     : {Update, MoveToDeletedItems, SoftDelete, HardDelete,
                    SendAs, Create}
AuditOwner        : {}

[PS] C:\>_
```

417


```
Machine: TLEX1.testlabs.se

[PS] C:\>Search-MailboxAuditLog CEO -StartDate 05/01/2017 -EndDate 05/31/2017 -LogonTypes Delegate -ShowDetails

RunspaceId           : 7a6dc68c-a437-429a-87c1-06c2e5354e44
Operation             : SendAs
OperationResult        : Succeeded
LogonType              : Delegate
ExternalAccess         : False
DestFolderId          :
DestFolderPathName     :
FolderId              :
FolderPathName         :
ClientInfoString       : Client=MSExchangeRPC
ClientIPAddress        : 192.168.1.171
ClientMachineName      :
ClientProcessName      : OUTLOOK.EXE
ClientVersion          : 16.0.8067.6527
InternalLogonType      : Owner
MailboxOwnerUPN        : admin@testlabs.se
MailboxOwnerSid        : S-1-5-21-1411203154-1084355696-2092060891-1103
DestMailboxOwnerUPN    :
DestMailboxOwnerSid    :
DestMailboxGuid        :
CrossMailboxOperation  :
LogonUserDisplayName   : admin
LogonUserSid           : S-1-5-21-1411203154-1084355696-2092060891-1103
SourceItems            : {}
SourceFolders          : {}
SourceItemIdsList      :
SourceItemSubjectsList :
SourceItemAttachmentsList :
SourceItemFolderPathNamesList :
SourceFolderPathsList  :
ItemId                : Unknown
ItemSubject            : Bonus
ItemAttachments        :
DirtyProperties        :
OriginatingServer      : TLEX1 (15.01.1034.013)
MailboxGuid            : df7a539e-fe4d-4d47-8c65-bad044a9f22a
MailboxResolvedOwnerName : CEO
LastAccessed           : 19/05/2017 07:24:56
```

```
Machine: TLEX1.testlabs.se

[PS] C:\>Search-MailboxAuditLog CEO -ShowDetails | Where {$_.Operation -match "delete"}

RunspaceId           : 7a6dc68c-a437-429a-87c1-06c2e5354e44
Operation             : SoftDelete
OperationResult       : Succeeded
LogonType             : Delegate
ExternalAccess        : False
DestFolderId          :
DestFolderPathName    :
FolderId              : LgAAAAACduxFmtr3NRZPEHNxQZc7oAQD8w1NgaLrbQ6s8Axuhi8TUAAAAAAEMAAB
FolderPathName        : \Inbox
ClientInfoString      : Client=MSExchangeRPC
ClientIPAddress       : 192.168.1.171
ClientMachineName     :
ClientProcessName     : OUTLOOK.EXE
ClientVersion         : 16.0.8067.6527
InternalLogonType     : Owner
MailboxOwnerUPN       : ceo@testlabs.se
MailboxOwnerSid       : S-1-5-21-1411203154-1084355696-2092060891-1691
DestMailboxOwnerUPN   :
DestMailboxOwnerSid   :
DestMailboxGuid       :
CrossMailboxOperation : False
LogonUserDisplayName  : admin
LogonUserSid          : S-1-5-21-1411203154-1084355696-2092060891-1103
SourceItems           : {RgAAAAACduxFmtr3NRZPEHNxQZc7oBwD8w1NgaLrbQ6s8Axuhi8TUAAAAAAEMAAD8w1NgaLrbQ6s8Axuhi8TUAAAAAAk2AAAA}
SourceFolders         : {}
SourceItemIdsList     : RgAAAAACduxFmtr3NRZPEHNxQZc7oBwD8w1NgaLrbQ6s8Axuhi8TUAAAAAAEMAAD8w1NgaLrbQ6s8Axuhi8TUAAAAAAk2AAAA
SourceItemSubjectsList : Disciplinary Action
SourceItemAttachmentsList :
SourceItemFolderPathNamesList : Inbox
SourceFolderPathNamesList :
ItemId               :
ItemSubject          :
ItemAttachments      :
DirtyProperties       :
OriginatingServer    : TLEX1 (15.01.1034.013)
MailboxGuid          : df7a539e-fe4d-4d47-8c65-bad044a9f22a
MailboxResolvedOwnerName : CEO
LastAccessed         : 19/05/2017 07:24:25
```

```
C:\Software\SearchResult.xml
- <Event OriginatingServer="TLEX1 (15.01.1034.013)" LogonUserSid="S-1-5-21-1411203154-1084355696-2092060891-1103" LogonUserDisplayName="admin" CrossMailboxOperation="false" MailboxOwnerSid="S-1-5-21-1411203154-1084355696-2092060891-1691" MailboxOwnerUPN="ceo@testlabs.se" InternalLogonType="Owner" ClientIPAddress="192.168.1.171" ClientInfoString="Client=MSExchangeRPC" FolderPathName="\Inbox" FolderId="LgAAAAACduxFmtr3NRZPEHNxQZc7oAQD8w1NgaLrbQ6s8Axuhi8TUAaaaaaEMAAAB" LogonType="Delegate" OperationResult="Succeeded" Operation="SoftDelete" LastAccessed="2017-05-19T07:24:25+01:00" Owner="CEO" MailboxGuid="df7a539e-fe4d-4d47-8c65-bad044a9f22a" ClientVersion="16.0.8067.6527" ClientProcessName="OUTLOOK.EXE">
  <SourceItems>
    <Item FolderPathName="\Inbox" Subject="Disciplinary Action" Id="RgAAAAACduxFmtr3NRZPEHNxQZc7oBwD8w1NgaLrbQ6s8Axuhi8TUAaaaaaEMAAAD8w1NgaLrbQ6s8Axuhi8TUAaaaaaEMAAAB">
  </SourceItems>
</Event>
```

423

```
Machine: TLEX1.testlabs.se
[PS] C:\Software>[XML] $searchResult = Get-Content .\SearchResult.xml
[PS] C:\Software>$searchResult.SearchResults.Event | Where {$_.Operation -match "delete"}

MailboxGuid      : df7a539e-fe4d-4d47-8c65-bad044a9f22a
Owner            : CEO
LastAccessed     : 2017-05-19T07:24:25+01:00
Operation        : SoftDelete
OperationResult   : Succeeded
LogonType        : Delegate
FolderId         : LgAAAAACduxFmtr3NRZPEHNxQZc7oAQD8w1NgaLrbQ6s8Axuhi8TUAaaaaaEMAAAB
FolderPathName   : \Inbox
ClientInfoString  : Client=MSExchangeRPC
ClientIPAddress   : 192.168.1.171
ClientProcessName : OUTLOOK.EXE
ClientVersion     : 16.0.8067.6527
InternalLogonType : Owner
MailboxOwnerUPN   : ceo@testlabs.se
MailboxOwnerSid   : S-1-5-21-1411203154-1084355696-2092060891-1691
CrossMailboxOperation : false
LogonUserDisplayName : admin
LogonUserSid      : S-1-5-21-1411203154-1084355696-2092060891-1103
OriginatingServer : TLEX1 (15.01.1034.013)
SourceItems       : SourceItems
```

424

Rozdział 11: Wysoka dostępność

```
Machine: TLEX1.testlabs.se
[PS] C:\>Get-DatabaseAvailabilityGroupNetwork

Identity            ReplicationEnabled Subnets
-----
DAG\MapiDagNetwork True                {{192.168.1.0/24,Up}}
```

436

```
Machine: TLEX1.testlabs.se

[PS] C:\>Get-DatabaseAvailabilityGroupNetwork

Identity                ReplicationEnabled Subnets
-----
DAG\MapiDagNetwork      True                {{192.168.1.0/24,Up}}
DAG\Replication          True                {{10.0.0.0/8,Misconfigured}}
```

[PS] C:\>_

438

```
Machine: TLEX1.testlabs.se

[PS] C:\>Move-ActiveMailboxDatabase DB2 -ActivateOnServer TLEX1

Identity                ActiveServerAtS ActiveServerAtE Status      NumberOfLogsLost
-----
DB2                     TLEX2           TLEX2           Failed

An Active Manager operation failed. Error: The database action failed.
Error: Move for database 'DB2' was suppressed due to a blackout between
'09:00:00'UTC and '17:00:00'UTC. 3 previous moves have happened in this
period. [Database: DB2, Server: TLEX1.testlabs.se]
+ CategoryInfo          : InvalidOperation: (DB2:ADObjectId) [Move-ActiveMailboxDatabase], AmDbMoveMoveSuppressedBlackoutException
+ FullyQualifiedErrorId : [Server=TLEX1,RequestId=c4e5997b-6a61-49e4-ade0-5fbf6c2c989f,TimeStamp=21/04/2017 10:31:09] [FailureCategory=Cmdlet-AmDbMoveMoveSuppressedBlackoutException] 28CB99B6,Microsoft.Exchange.Management.SystemConfigurationTasks.MoveActiveMailboxDatabase
+ PSComputerName        : tlex1.testlabs.se

[PS] C:\>_
```

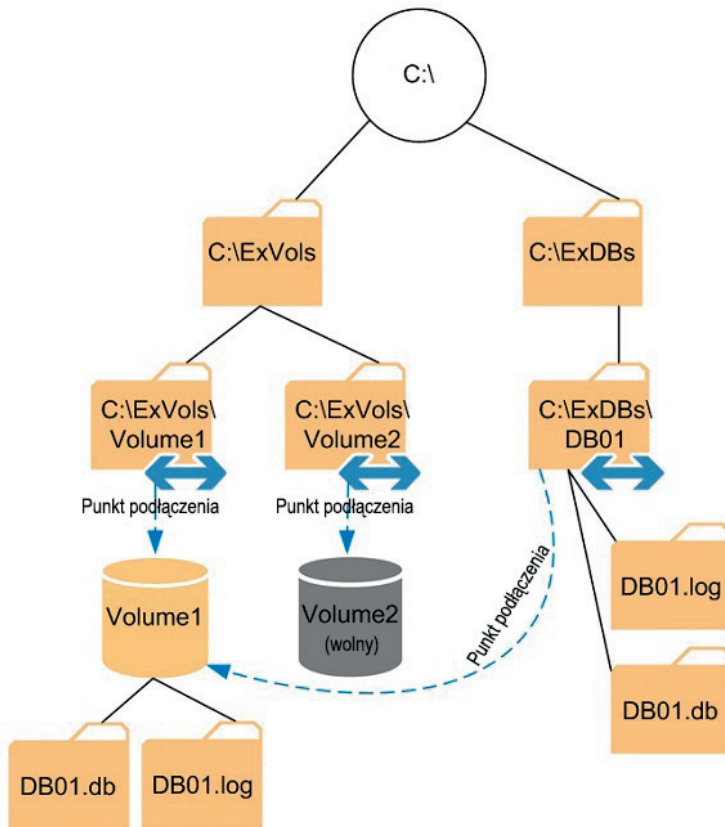
446

Disk 1 Basic 20,00 GB Online	Volume1 (M:) 20,00 GB NTFS Healthy (Primary Partition)
Disk 2 Basic 20,00 GB Online	Volume2 (N:) 20,00 GB NTFS Healthy (Primary Partition)

453

This PC > Local Disk (C:) > ExVols >		
Name	Date modified	Type
Volume1	21/04/2017 12:26	File folder
Volume2	21/04/2017 12:26	File folder

453



455

```
Machine: TLEX1.testlabs.se

\\?\Volume{96740b06-04e5-4c4a-bf0d-fe3e4af39e6b}\
C:\

\\?\Volume{6e762c53-4974-4b06-b036-940383b09e8a}\
N:\
C:\ExVols\Volume2\
C:\ExDBs\DB01\

\\?\Volume{9d236651-d862-417d-b460-ae72b7f3f8ca}\
*** NO MOUNT POINTS ***

\\?\Volume{8e71f9fa-0357-11e7-841e-00155d01041a}\
D:\

[PS] C:\>_
```

456

Seeding Number of events: 133

Level	Date and Time	Source	Eve...	Task Category
Information	21/04/2017 13:20:10	HighAvailability	1110	Auto Reseed Manager
Information	21/04/2017 13:20:10	HighAvailability	1124	Auto Reseed Manager
Information	21/04/2017 13:20:10	HighAvailability	1109	Auto Reseed Manager

Event 1109, HighAvailability

General Details

Automatic Reseed Manager is starting repair workflow 'FailedSuspendedCopyAutoReseed' for database 'DB01'.

WorkflowLaunchReason: The Microsoft Exchange Replication service is unable to create required directory C:\ExDBs\DB01\DB01.log for DB01\TLEX1. The database copy status will be set to Failed. Please check the file system permissions. Error: System.IO.DirectoryNotFoundException: Could not find a part of the path 'C:\ExDBs\DB01\DB01.log'.

at System.IO._Error.WinIOError(Int32 errorCode, String maybeFullPath)
 at System.IO.Directory.InternalCreateDirectory(String fullPath, String path, Object dirSecurityObj, Boolean checkHost)
 at System.IO.Directory.CreateDirectory(String path, DirectorySecurity directorySecurity)
 at Microsoft.Exchange.Cluster.Replay.DirectoryOperations.TryCreateDirectory(String directory)

```
Machine: TLEX1.testlabs.se

[PS] C:\Program Files\Microsoft\Exchange Server\V15\Scripts>.\RedistributeActiveDatabases.ps1 -DagName DAG -BalanceDbsByActivationPreference -ShowFinalDatabaseDistribution

*****
Balance DAG DBs
22 April 2017 06:24:31
*****
Dag : DAG
ServerCount : 2
DatabaseCount : 4
CopiesCount : 8

-----
Starting Server Distribution
-----

ServerName TotalDbs ActiveDbs PassiveDbs PreferenceCountList MountedDbs DismountedDbs
-----
TLEX1 4 1 3 {4, 0} 1 0
TLEX2 4 3 1 {0, 4} 3 0

-----
Starting Database Moves
-----

Considering move of 'DB2' from 'TLEX2' (AP = 2) to 'TLEX1' (AP = 1)...

Confirm
Are you sure you want to perform this action?
Moving mailbox database "DB2" from server "TLEX2.testlabs.se" to server "TLEX1.testlabs.se".
[Y] Yes [A] Yes to All [N] No [L] No to All [?] Help
(default is "Y"):
```



```
Machine: TLEX1.testlabs.se

[PS] C:\>Get-MailboxDatabase | Get-MailboxDatabaseCopyStatus | Select Name,
Status, ContentIndexState

Name                                Status ContentIndexState
----                                -
DB1\TLEX1                          Healthy Healthy
DB1\TLEX2                          Mounted Healthy
DB2\TLEX1                          Healthy Healthy
DB2\TLEX2                          Mounted Healthy
DB3\TLEX1                          Healthy Healthy
DB3\TLEX2                          Mounted Healthy
DB4\TLEX1                          Mounted Healthy
DB4\TLEX2                          Healthy Healthy

[PS] C:\>
```

461

```
Machine: TLEX1.testlabs.se

[PS] C:\>Test-ReplicationHealth

Server      Check                                Result      Error
-----
TLEX1      ClusterService                      Passed
TLEX1      ReplayService                       Passed
TLEX1      ActiveManager                      Passed
TLEX1      TasksRpcListener                   Passed
TLEX1      TcpListener                        Passed
TLEX1      ServerLocatorService               Passed
TLEX1      DagMembersUp                       Passed
TLEX1      MonitoringService                  Passed
TLEX1      ClusterNetwork                     Passed
TLEX1      QuorumGroup                        Passed
TLEX1      FileShareQuorum                    Passed
TLEX1      DatabaseRedundancy                 Passed
TLEX1      DatabaseAvailability                Passed
TLEX1      DBCopySuspended                    Passed
TLEX1      DBCopyFailed                       Passed
TLEX1      DBInitializing                     Passed
TLEX1      DBDisconnected                     Passed
TLEX1      DBLogCopyKeepingUp                 Passed
TLEX1      DBLogReplayKeepingUp               Passed

[PS] C:\>
```

463

```
Machine: TLEX1.testlabs.se

[PS] C:\Program Files\Microsoft\Exchange Server\V15\Scripts>.\CollectOverMe
trics.ps1 -DatabaseAvailabilityGroup DAG -ReportPath C:\temp\Report
Get statistics from TLEX2.testlabs.se
Get statistics from TLEX1.testlabs.se
Found total of 104 entries
Searching for ACLL loss reports on TLEX2.testlabs.se.
Searching for ACLL loss reports on TLEX1.testlabs.se.

Generated the following per-DAG reports:
C:\temp\Report\FailoverReport.DAG.2017_04_22_06_47_30.csv

[PS] C:\Program Files\Microsoft\Exchange Server\V15\Scripts>_
```

465

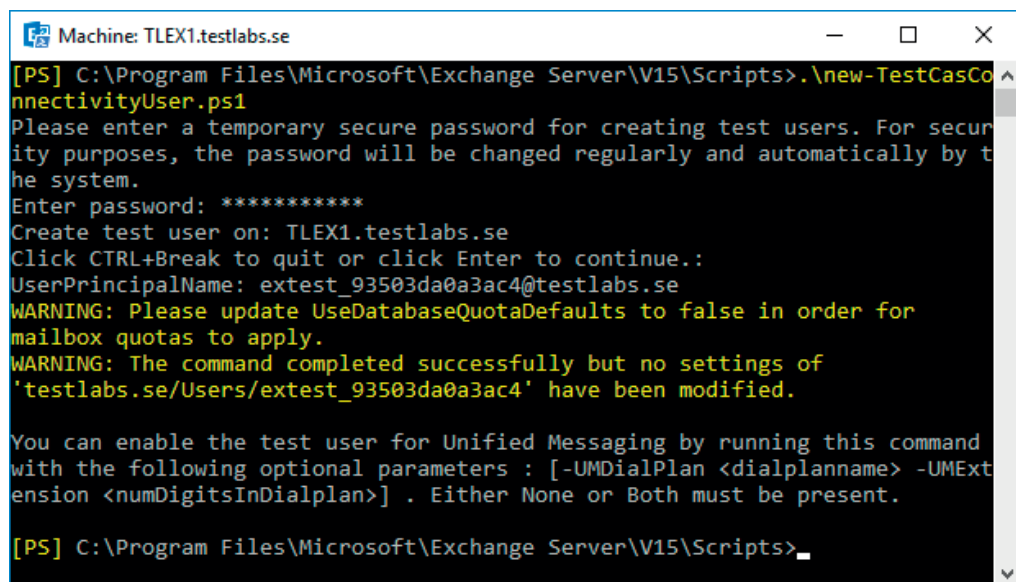
```
Machine: TLEX1.testlabs.se

[PS] C:\Program Files\Microsoft\Exchange Server\V15\Scripts>Import-Csv C:\t
emp\Report\FailoverReport.DAG.2017_04_22_06_47_30.csv

DatabaseName           : DB2
TimeRecoveryStarted    : 22/04/2017 06:42:23
TimeRecoveryEnded      : 22/04/2017 06:42:24
ActionInitiator        : Automatic
ActionCategory         : Move
ActionReason           : NodeDown
Result                 : Success
DurationOutage         : 0.9743777
DurationDismount       : 0.1159182
DurationBcs            : 0.0189146
DurationAccl           : 0.2088316
DurationMount          : 0.6279018
DurationOther          : 0.0217261
ActiveOnStart          : TLEX2.testlabs.se
ActiveOnFinish         : TLEX1.testlabs.se
PAMServer              : TLEX1.testlabs.se
NumberOfAttempts       : 1
ReplayedLogs           : 0
LostLogs               : 0
```

465

Rozdział 12: Monitorowanie kondycji programu Exchange



```
[PS] C:\Program Files\Microsoft\Exchange Server\V15\Scripts>.\new-TestCasConnectivityUser.ps1
Please enter a temporary secure password for creating test users. For security purposes, the password will be changed regularly and automatically by the system.
Enter password: *****
Create test user on: TLEX1.testlabs.se
Click CTRL+Break to quit or click Enter to continue.:
UserPrincipalName: extest_93503da0a3ac4@testlabs.se
WARNING: Please update UseDatabaseQuotaDefaults to false in order for mailbox quotas to apply.
WARNING: The command completed successfully but no settings of 'testlabs.se/Users/extest_93503da0a3ac4' have been modified.

You can enable the test user for Unified Messaging by running this command with the following optional parameters : [-UMDialPlan <dialplanname> -UMExtension <numDigitsInDialplan>] . Either None or Both must be present.

[PS] C:\Program Files\Microsoft\Exchange Server\V15\Scripts>
```

```
Machine: TLEX1.testlabs.se
[PS] C:\>Test-ServiceHealth

Role                : Mailbox Server Role
RequiredServicesRunning : True
ServicesRunning      : {IISAdmin, MExchangeADTopology,
                        MExchangeDelivery, MExchangeIS,
                        MExchangeMailboxAssistants, MExchangeRepl,
                        MExchangeRPC, MExchangeServiceHost,
                        MExchangeSubmission, MExchangeThrottling,
                        MExchangeTransportLogSearch, W3Svc, WinRM}
ServicesNotRunning    : {}

Role                : Client Access Server Role
RequiredServicesRunning : True
ServicesRunning      : {IISAdmin, MExchangeADTopology,
                        MExchangeMailboxReplication, MExchangeRPC,
                        MExchangeServiceHost, W3Svc, WinRM}
ServicesNotRunning    : {}

Role                : Unified Messaging Server Role
RequiredServicesRunning : True
ServicesRunning      : {IISAdmin, MExchangeADTopology,
                        MExchangeServiceHost, MExchangeUM, W3Svc,
                        WinRM}
ServicesNotRunning    : {}

Role                : Hub Transport Server Role
RequiredServicesRunning : False
ServicesRunning      : {IISAdmin, MExchangeADTopology,
                        MExchangeEdgeSync, MExchangeServiceHost,
                        MExchangeTransportLogSearch, W3Svc, WinRM}
ServicesNotRunning    : {MExchangeTransport}

[PS] C:\>
```

```
Machine: TLEX1.testlabs.se

[PS] C:\>Test-MAPIConnectivity nuno@testlabs.se | FL

RunspaceId      : 1a25b300-c5e9-4354-baad-f9a6c8c1d785
Server          : TLEX1
Database        : DB1
Mailbox         : Nuno
MailboxGuid     : 7a126ca0-9acc-49a5-8119-ab4e8087b70b
IsArchive       : False
IsDatabaseCopyActive : True
Result          : Success
Latency         : 00:00:00.0073686
Error           :
Identity        :
IsValid         : True
ObjectState     : New

[PS] C:\>_
```

472

```
Machine: TLEX1.testlabs.se

[PS] C:\>$cred = Get-Credential

cmdlet Get-Credential at command pipeline position 1
Supply values for the following parameters:
Credential
[PS] C:\>Test-OutlookWebServices nuno@testlabs.se -MailboxCredential $cred
| FT ServiceEndpoint, Scenario, Result, Latency -AutoSize

ServiceEndpoint      Scenario  Result Latency
-----
autodiscover.testlabs.se AutoDiscoverOutlookProvider Success    22
mail.testlabs.se      ExchangeWebServices Success    10
mail.testlabs.se      AvailabilityService Success    23
mail.testlabs.se      OfflineAddressBook Failure     12

[PS] C:\>_
```

473

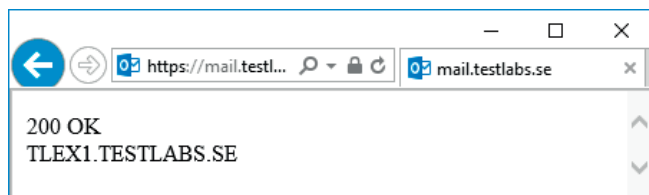
```
Machine: TLEX1.testlabs.se

[PS] C:\>Test-WebServicesConnectivity nuno@testlabs.se -MailboxCredential $
cred | Select ServiceEndPoint, Scenario, Result, Latency

ServiceEndPoint      Scenario  Result Latency
-----
autodiscover.testlabs.se AutoDiscoverSoapProvider Success    15
mail.testlabs.se      EwsGetFolder Success    15

[PS] C:\>_
```

473



476

```
Machine: TLEX1.testlabs.se

[PS] C:\>Invoke-WebRequest -Uri "https://mail.testlabs.se/owa/healthcheck.htm"

StatusCode      : 200
StatusDescription : OK
Content         : {50, 48, 48, 32, 79, 75, 60, 98, 114, 47, 62, 84, 76, 69, 88, 49...}
RawContent      : HTTP/1.1 200 OK
                  X-FEServer: TLEX1
                  Content-Length: 28
                  Date: Tue, 30 May 2017 12:07:35 GMT
                  Server: Microsoft-IIS/10.0
                  X-Powered-By: ASP.NET

Headers         : {[X-FEServer, TLEX1], [Content-Length, 28], [Date, Tue, 30 May 2017 12:07:35 GMT], [Server, Microsoft-IIS/10.0], [X-Powered-By, ASP.NET]}
RawContentLength : 28

[PS] C:\>
```

476

```
Machine: TLEX1.testlabs.se

[PS] C:\>[System.Net.ServicePointManager]::ServerCertificateValidationCallback = {$true}
[PS] C:\>$wc = New-Object System.Net.WebClient
[PS] C:\>$wc.downloadstring("https://tlex1.testlabs.se/owa/healthcheck.htm")
200 OK<br/>TLEX1.TESTLABS.SE
[PS] C:\>
```

478

```
Machine: TLEX1.testlabs.se

[PS] C:\>Set-ServerComponentState TLEX1 -Component OwaProxy -Requester Maintenance -State Inactive
[PS] C:\>
[PS] C:\>$wc.downloadstring("https://tlex1.testlabs.se/owa/healthcheck.htm")
Exception calling "DownloadString" with "1" argument(s): "The underlying connection was closed: An unexpected error occurred on a receive."
At line:1 char:1
+ $wc.downloadstring("https://tlex1.testlabs.se/owa/healthcheck.htm")
+ ~~~~~
+ CategoryInfo          : NotSpecified: (:) [], MethodInvocationException
+ FullyQualifiedErrorId : WebException

[PS] C:\>
[PS] C:\>
[PS] C:\>Set-ServerComponentState TLEX1 -Component OwaProxy -Requester Maintenance -State Active
[PS] C:\>
[PS] C:\>$wc.downloadstring("https://tlex1.testlabs.se/owa/healthcheck.htm")
200 OK<br/>TLEX1.TESTLABS.SE
[PS] C:\>
```

478

```
Machine: TLEX1.testlabs.se

[PS] C:\>Get-ServerHealth TLEX1 | FL CurrentHealthSetState, Name, HealthSetName, AlertValue

CurrentHealthSetState : NotApplicable
Name                  : CrashEvent.MSEExchangeBotsAppPool
HealthSetName         : 0365Griffin
AlertValue             : Healthy

CurrentHealthSetState : Online
Name                  : RuleEvaluationAdFailureEventLogMonitor
HealthSetName         : HubTransport
AlertValue             : Healthy

CurrentHealthSetState : NotApplicable
Name                  : PowerShellHttpGenericErrorAboveThresholdMonitor
```

479


```
Machine: TLEX1.testlabs.se

[PS] C:\>Get-HealthReport -Server TLEX1 | FT State, HealthSet, AlertValue, MonitorCount
```

State	HealthSet	AlertValue	MonitorCount
NotApplicable	0365Griffin	Healthy	248
Online	HubTransport	Healthy	67
NotApplicable	EDS	Healthy	43
Online	FrontendTransport	Healthy	20
NotApplicable	Search	Healthy	78
NotApplicable	HxService	Healthy	110
NotApplicable	StreamingOptics	Healthy	16
NotApplicable	Store	Healthy	90
NotApplicable	Xrm	Healthy	38
NotApplicable	PublicFolders	Healthy	9
NotApplicable	DataProtection	Healthy	92

480

```
Machine: TLEX1.testlabs.se

[PS] C:\>Get-HealthReport -Server TLEX1 | Where {$_.AlertValue -ne "Healthy"} | FT State, HealthSet, AlertValue, MonitorCount
```

State	HealthSet	AlertValue	MonitorCount
NotApplicable	MailboxSpace	Unhealthy	10

```
[PS] C:\>
```

481

```
Machine: TLEX1.testlabs.se

[PS] C:\>Get-ServerHealth -HealthSet MailboxSpace -Server TLEX1 | Sort AlertValue | FT Name, TargetResource, AlertValue -Auto
```

Name	TargetResource	AlertValue
DatabaseSizeMonitor	DB2	Healthy
DatabaseSizeMonitor	DB3	Healthy
DatabaseSizeMonitor	DB04	Healthy
DatabaseSizeMonitor	DB1	Healthy
MaintenanceTimeoutMonitor.MailboxSpace		Healthy
MaintenanceFailureMonitor.MailboxSpace		Healthy
StorageLogicalDriveSpaceMonitor	DB1	Unhealthy
StorageLogicalDriveSpaceMonitor	DB04	Unhealthy
StorageLogicalDriveSpaceMonitor	DB3	Unhealthy
StorageLogicalDriveSpaceMonitor	DB2	Unhealthy

```
[PS] C:\>
```

482

```
Machine: TLEX1.testlabs.se

[PS] C:\>(Get-WinEvent -ComputerName TLEX1 -LogName Microsoft-Exchange-Acti
veMonitoring/ProbeResult -FilterXPath "[*][UserData[EventXML[ResultName='MSEx
changeDagMgmt/EdbAndLogVolSpace/DB1']]]" | ForEach {[XML] $_.toXml()}).Even
t.UserData.EventXml | Sort ExecutionEndTime -Descending | Select Error -Fir
st 1 | FL

Error : 'DB1' is low on log volume space [C:\]. Current=9.85 GB,
        Threshold=175.78 GB

[PS] C:\>_
```

485

```
Machine: TLEX1.testlabs.se

[PS] C:\Software>.\countTransactionLogs.ps1

Name Server Logs
-----
DB01 TLEX1 488
DB02 TLEX1 509
DB03 TLEX1 474
DB04 TLEX1 474

[PS] C:\Software>_
```

486

```
Machine: TLEX1.testlabs.se

[PS] C:\>Get-MailboxDatabase | Get-MailboxDatabaseCopyStatus | Sort Name |
FT Name, DiskTotalSpace, DiskFreeSpace -AutoSize

Name          DiskTotalSpace          DiskFreeSpace
-----
DB01\TLEX1 69.45 GB (74,567,380,992 bytes) 9.882 GB (10,610,659,328 bytes)
DB01\TLEX2 69.45 GB (74,567,380,992 bytes) 25.96 GB (27,873,320,960 bytes)
DB02\TLEX1 69.45 GB (74,567,380,992 bytes) 9.882 GB (10,610,659,328 bytes)
DB02\TLEX2 69.45 GB (74,567,380,992 bytes) 25.96 GB (27,873,320,960 bytes)
DB03\TLEX1 69.45 GB (74,567,380,992 bytes) 9.882 GB (10,610,659,328 bytes)
DB03\TLEX2 69.45 GB (74,567,380,992 bytes) 25.96 GB (27,873,320,960 bytes)
DB04\TLEX1 4.967 GB (5,333,053,440 bytes) 3.128 GB (3,358,760,960 bytes)
DB04\TLEX2 69.45 GB (74,567,380,992 bytes) 25.96 GB (27,873,320,960 bytes)

[PS] C:\>_
```

488

```
Machine: TLEX1.testlabs.se

[PS] C:\>Get-MailboxDatabaseRedundancy DB01 | FL

RunspaceId           : 664fb032-104b-44a8-9b15-2a6606304008
DbGuid               : 02176f42-32bd-4e99-b5fc-bfe79ccf12ce
Identity             : DB01
IsDatabaseFoundInAD  : True
IsAtLeast2RedundantCopy : True
IsAtLeast2AvailableCopy : True
AtLeast2RedundantCopyTransitionTime : 02/06/2017 07:18:26
AtLeast2AvailableCopyTransitionTime : 02/06/2017 07:18:26
ServerContactedFqdn  : TLEX1.TESTLABS.SE
HealthInfoCreateTime : 21/04/2017 08:36:05
HealthInfoLastUpdateTime : 02/06/2017 08:01:27
DatabaseFoundInAD    : CurrentState: Active; LastActiveTran:
SkippedFromMonitoring : CurrentState: Inactive; LastActiveTran:
AtLeast1RedundantCopy : CurrentState: Active; LastActiveTran:
AtLeast2RedundantCopy : CurrentState: Active; LastActiveTran:
AtLeast3RedundantCopy : CurrentState: Inactive; LastActiveTran:
AtLeast4RedundantCopy : CurrentState: Inactive; LastActiveTran:
AtLeast1AvailableCopy : CurrentState: Active; LastActiveTran:
AtLeast2AvailableCopy : CurrentState: Active; LastActiveTran:
AtLeast3AvailableCopy : CurrentState: Inactive; LastActiveTran:
AtLeast4AvailableCopy : CurrentState: Inactive; LastActiveTran:
DbCopies              : {DB01\TLEX1, DB01\TLEX2}
IsValid              : True
ObjectState           : Unchanged

[PS] C:\>_
```

489

```
Machine: TLEX1.testlabs.se

[PS] C:\>Get-MailboxDatabaseRedundancy -DatabaseAvailabilityGroup DAG | Select Identity, IsAtLeast2
RedundantCopy, IsAtLeast2AvailableCopy, @{Expression={$_.AtLeast3AvailableCopy.CurrentState}; Name=
"AtLeast3AvailableCopy"}

Identity IsAtLeast2RedundantCopy IsAtLeast2AvailableCopy AtLeast3AvailableCopy
-----
DB01      True                    True                Inactive
DB02      True                    True                Inactive
DB03      True                    True                Inactive
DB04      True                    True                Inactive

[PS] C:\>_
```

490

```
Machine: TLEX1.testlabs.se

[PS] C:\>Get-MailboxDatabaseRedundancy -DatabaseAvailabilityGroup DAG | Select Identity, IsAtLeast2RedundantCopy, IsAtLeast2AvailableCopy

Identity IsAtLeast2RedundantCopy IsAtLeast2AvailableCopy
-----
DB01      False                    False
DB02      False                    False
DB03      False                    False
DB04      False                    False

[PS] C:\>
```

490

```
Machine: TLEX1.testlabs.se

[PS] C:\>Get-WinEvent -ComputerName TLEX1 -FilterHashTable @{LogName="Microsoft-Exchange-HighAvailability/Monitoring"; id=1018} | Select -First 1 | FL

TimeCreated      : 09/06/2017 06:18:22
ProviderName     : Microsoft-Exchange-HighAvailability
Id              : 1018
Message         : Database redundancy two-copy health check failed. You can ignore this error if you have less than 3 database copies configured.

                  This event can be disabled by setting the following regkey to 1: 'HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\ExchangeServer\v15\Replay\Parameters -> DatabaseHealthCheckRedundancyTwoCopyAlertDisabled'.

                  Database: DB04
                  Redundancy count: 1

                  Error: There were database redundancy check failures for database 'DB04' that may be lowering its redundancy and putting the database at risk of data loss. Redundancy Count: 1. Expected Redundancy Count: 2. Detailed error(s):
```

491

Rozdział 13: Integracja

```
Machine: TLEX01.testlabs.se

[PS] C:\>Get-ClientAccessService | fl Name, AutoDiscoverServiceInternalUri

Name              : TLEX01
AutoDiscoverServiceInternalUri : https://autodiscover.testlabs.se/Autodiscover/Autodiscover.xml
```

495

```
Administrator: Skype for Business Server Management Shell
PS C:\> Get-CsOauthConfiguration

Identity                : Global
PartnerApplications     : {Name=Exchange;ApplicationIdentifier=00000002-0000-0ff1-ce00-000000000000;Realm=testlabs.se;ApplicationTrustLevel=Full;AcceptSecurityIdentifierInformation=False;Enabled=True}
OAuthServers            : {}
Realm                   : 
ServiceName             : 00000004-0000-0ff1-ce00-000000000000
ClientAuthorizationOAuthServerIdentity : 
ExchangeAutodiscoverUrl : https://autodiscover.testlabs.se/autodiscover/autodiscover.svc
ExchangeAutodiscoverAllowedDomains    :
```

497

```
Administrator: Skype for Business Server Management Shell
PS C:\> Get-CsCertificate -Type OAuthTokenIssuer

Issuer          : CN=testlabs-TLDC01-CA, DC=testlabs, DC=se
NotAfter        : 2019-05-11 22:19:32
NotBefore       : 2017-05-11 22:19:32
SerialNumber    : 780000000F1A00538B3D9F371E000000000000F
Subject         : CN=testlabs.se, OU=Testlabs, O=Testlabs, L=Malmo, S=Skane, C=SE
AlternativeNames : {}
Thumbprint      : 714A8335F44E95EA3D50EFEAF221D0B4571D2A79
EffectiveDate   : 2017-05-11 22:29:40
PreviousThumbprint : 
UpdateTime      : 
Use             : OAuthTokenIssuer
SourceScope     : Global
```

497

```
Administrator: Skype for Business Server Management Shell
PS C:\> Get-CsUser pdickson | fl Identity,ClientPolicy,ArchivingPolicy,ExchangeArchivingPolicy,RegistrarPool,SipAddress

Identity          : CN=Pete Dickson,OU=Sales,DC=testlabs,DC=se
ClientPolicy      : TestlabsClientPolicy
ArchivingPolicy   : TestlabsArchivingPolicy
ExchangeArchivingPolicy : ArchivingToExchange
RegistrarPool     : tlfe01.testlabs.se
SipAddress        : sip:pdickson@testlabs.se
```

501

```
Administrator: Skype for Business Server Management Shell
PS C:\> Test-CsUnifiedContactStore -UserSipAddress "sip:pdickson@testlabs.se" -TargetFqdn "tlfe01.testlabs.se" -UserCredential $credential

Target Fqdn : tlfe01.testlabs.se
Result      : Success
Latency     : 00:00:00.0350145
Error Message : 
Diagnosis   :
```

503

```

Administrator: Skype for Business Server Management Shell
PS C:\> Debug-CsUnifiedContactStore -Identity pdickson@testlabs.se | fl

UcsMigrationAttemptCount : 1
LastUcsMigrationAttempt  : 5/12/2017 6:24:00 PM
SipUri                   : pdickson@testlabs.se
UcsMode                  : Migrated

```

503

```

Administrator: Skype for Business Server Management Shell
PS C:\> Get-CsPartnerApplication

Identity           : Exchange
AuthToken          : Value=https://autodiscover.testlabs.se/autodiscover/metadata/json/1
Name               : Exchange
ApplicationIdentifier : 00000002-0000-00ff1-ce00-000000000000
Realm              : testlabs.se
ApplicationTrustLevel : Full
AcceptSecurityIdentifierInformation : False
Enabled            : True

```

505

Skype for Business Configuration Information

Controlled Phones	TRUE	--
GAL or Server Based Search	GAL search	--
PC to PC AV Encryption	AV Encryption Enforced	--
Telephony Mode	Telephony Mode Disabled	--
Line Configured From	Auto Line Configuration	--
Configuration Mode	Auto Configuration	--
EWS Internal URL	https://mail.testlabs.se/EWS/Exchange.asmx	--
EWS External URL	https://mail.testlabs.se/EWS/Exchange.asmx	--
SharePoint Search Center UF		--
Skill Search URL		--
Skype for Business Server	tlfex01.testlabs.se	--
Local Log Folder	C:\Users\pdickson\AppData\Local\Microsoft\Office\16.0\Lync\Tracing	--
Inside User Status	TRUE	--
Contact List Provider	UCS	--
Pairing State	Skype for Business cannot connect to your desk phone because the US Enabled	
UCS Connectivity State	Exchange connection Active	--
MAPI Information	MAPI Status OK	MAPI Status OK
EWS Information		EWS Status OK
License State	Skype for Business ProPlus	--

506

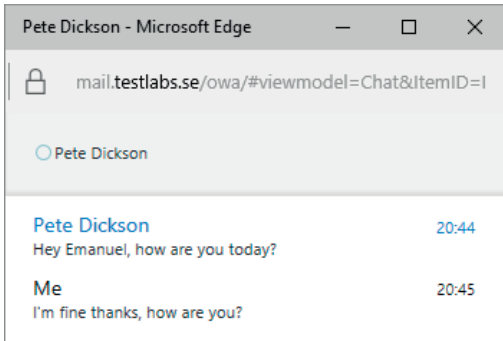
```

Machine: TLEX01.testlabs.se
[PS] C:\> Get-ExchangeCertificate

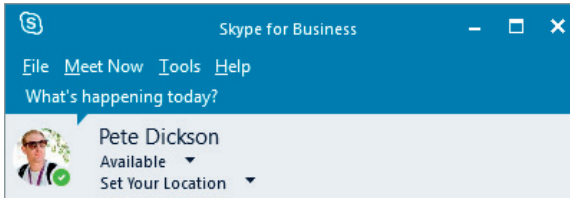
Thumbprint                               Services    Subject
-----
1422EB9AB822E73ADFD7E4B1013D9E871FF3F181 ..... CN=TLEX01.testlabs.se
60C59DAE95C3FCB91B6AD2D545A9A99203D9B543 ..... CN=localhost
BA4E150BBA6F7D7324A7F694AFC1F46E4FADC98A ...WS... CN=mail.testlabs.s...
183CEB67296427EC9C6BA63EE626A3DAAA66F0AA ...S... CN=Microsoft Excha...
2041D4FF67FFDC18F12CF6C0526338B485D08716 IP.WS... CN=TLEX01
3AD26581EE2D9D4820AF28C17C6FEE610DE668D7 ..... CN=WMSvc-SHA2-TLEX01

```

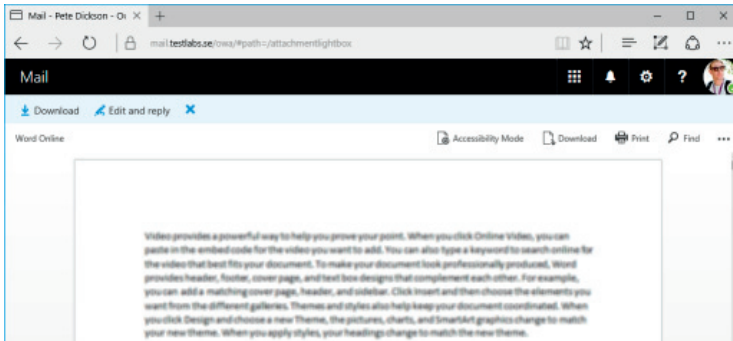
507



511



512



516


```
Machine: TLEX01.testlabs.se
[PS] C:\>Test-FederationTrust

Begin process.

STEP 1 of 6: Getting ADUser information for extest_f55866cfee824...
RESULT: Success.

STEP 2 of 6: Getting FederationTrust object for extest_f55866cfee824...
RESULT: Success.

STEP 3 of 6: Validating that the FederationTrust has the same STS certificates as the actual certificates published by the STS in the federation metadata.
RESULT: Success.

STEP 4 of 6: Getting STS and Organization certificates from the federation trust object...
RESULT: Success.

Validating current configuration for FYDIBOHF25SPDLT.testlabs.se...

Validation successful.

STEP 5 of 6: Requesting delegation token...
RESULT: Success. Token retrieved.

STEP 6 of 6: Validating delegation token...
RESULT: Success.

Closing Test-FederationTrust...
```

```
Machine: TLEX01.testlabs.se

[PS] C:\>Get-OrganizationRelationship | Test-OrganizationRelationship -User
Identity pdickson@testlabs.se

Begin testing for organization relationship CN=On-premises to 0365 - 873245
c5-d3df-4d16-afb2-14e3fbb018a7,CN=Federation,CN=First Organization,CN=Micro
soft Exchange,CN=Services,CN=Configuration,DC=testlabs,DC=se, enabled state
True.

Exchange D-Auth Federation Authentication STS Client Identities are urn:fed
eration:MicrosoftOnline/FYDIBOHF25SPDLT.testlabs.se;

STEP 1: Validating user configuration
RESULT: Success.

STEP 2: Getting federation information from remote organization...
RESULT: Success.

STEP 3: Validating consistency in returned federation information
RESULT: Success.

STEP 4: Requesting delegation token from the STS...
RESULT: Success.
Retrieved token for target https://autodiscover-s.outlook.com/autodiscover/
autodiscover.svc/WSSecurity for offer Name=MSEExchange.Autodiscover,Duration
=28800(secs)

STEP 5: Getting organization relationship setting from remote partner...
RESULT: Success.

STEP 6: Validating organization relationships returned from remote partner
RESULT: Success.

LAST STEP: Writing results...
No Significant Issues to Report

COMPLETE.
```

520

Rozdział 14: Skrypty wykorzystujące zarządzane API Exchange Web Services

```
Machine: TLEX01.testlabs.se

[PS] C:\>Add-Type -Path C:\EWS\Microsoft.Exchange.WebServices.dll
[PS] C:\>$svc = New-Object Microsoft.Exchange.WebServices.Data.ExchangeServ
ice
[PS] C:\>$svc.AutodiscoverUrl("Isanders@testlabs.se")
[PS] C:\>
```

525

```
Machine: TLEX01.testlabs.se

[PS] C:\>[System.Reflection.Assembly]::LoadFile("C:\EWS\Microsoft.Exchange.
WebServices.dll")

GAC      Version      Location
---      -
True     v2.0.50727    C:\Windows\assembly\GAC_MSIL\Microsoft.Exchange.W...
```

526

```
Machine: TLEX01.testlabs.se

[PS] C:\>$url = "https://autodiscover.testlabs.se/EWS/Exchange.asmx"
[PS] C:\>$svc.Url = New-Object System.Uri -ArgumentList $url
[PS] C:\>
[PS] C:\>$svc.Url

AbsolutePath      : /EWS/Exchange.asmx
AbsoluteUri       : https://autodiscover.testlabs.se/EWS/Exchange.asmx
```

527

```
Machine: TLEX01.testlabs.se

[PS] C:\>[System.Reflection.Assembly]::LoadFile(
>> "C:\EWS\Microsoft.Exchange.WebServices.dll"
>> )

GAC      Version      Location
---      -
True     v2.0.50727         C:\Windows\assembly\GAC_MSIL\Microsoft.Exchange.W...

[PS] C:\>$svc = New-Object Microsoft.Exchange.WebServices.Data.ExchangeService
[PS] C:\>$spm = [System.Net.ServicePointManager]
[PS] C:\>$spm::ServerCertificateValidationCallback = {$true}
[PS] C:\>$svc.AutoDiscoverUrl("lsanders@testlabs.se")
[PS] C:\>
```

528

```
Machine: TLEX01.testlabs.se

[PS] C:\>Add-Type -Path C:\EWS\Microsoft.Exchange.WebServices.dll
[PS] C:\>$svc = New-Object -TypeName Microsoft.Exchange.WebServices.Data.ExchangeService
[PS] C:\>$svc.AutoDiscoverUrl("lsanders@testlabs.se")
[PS] C:\>$msg = New-Object -TypeName Microsoft.Exchange.WebServices.Data.EmailMessage -ArgumentList $svc
[PS] C:\>$msg.Subject = "Test E-Mail"
[PS] C:\>$msg.Body = "This is a test"
[PS] C:\>$msg.From = "lsanders@testlabs.se"
[PS] C:\>$to = "administrator@testlabs.se", "pdickson@testlabs.se", "emoss@testlabs.se"
[PS] C:\>$to | ForEach-Object {$msg.ToRecipients.Add($_) | Out-Null}
[PS] C:\>$msg.SendAndSaveCopy()
[PS] C:\>
```

530

```
Machine: TLEX01.testlabs.se

[PS] C:\>Send-EWSMailMessage -From administrator@testlabs.se -PrimarySmtpAddress helpdesk@testlabs.se,lsanders@testlabs.se -Subject 'Critical alert on TLEX01' -Body 'TLEX01 Server is low on disk space' -Cc itmanager@testlabs.se
[PS] C:\>
```

533

```
Machine: TLEX01.testlabs.se

[PS] C:\>Send-EWSMailMessage -From sysadmin@testlabs.se -PrimarySmtpAddress helpdesk@testlabs.se -Subject 'Critical alert on TLEX04' -Body 'TLEX04 Server is low on disk space' -Cc administrator@testlabs.se -Bcc itmanager@testlabs.se
[PS] C:\>
```

537

```
Machine: TLEX01.testlabs.se

HasAttachments : False
To : Arlene Finley; Arlene Finley; Emanuel Moss; Lee Sanders;
Pete Dickson
Received : 5/1/2017 7:08:02 PM
Subject : Satiare
Id : AQMkAGYzYzlhNmVmlWM5YTatNDM1ZC05Mzg1LWVhMzk2ZDQyYjg1YgBGA
AADjIGhyGd89EWPyfMpDePJdQcAmnPAwTdXuUKedWHHqvWuBQAAAgEMAA
AAmnpAwTdXuUKedWHHqvWuBQAAAEFHQAAAA==
Body : west. At 6 crossed O'Connell's Plains, and at 7 stopped
on a point of remained for the night. Started a kangaroo
half-a-mile before we got in, sore feet and unable to
walk that they killed it. CONVICTS. labourers. 'Smith
employed mending tools and making shoe-nails. beyond the
Blue Mountains, wrote at once to William Cox, Esq.,
J.P., Clarndon: branch of a river running to the east
not yet named. A fine, clear day. water-platypus mole,
is seen in great numbers. The soil is rich, and

Sent : 5/1/2017 7:08:01 PM
Cc :
```

542

```
Machine: TLEX01.testlabs.se

[PS] C:\Scripts>.\GetMessageHeaders.ps1 -query "Subject:'Financial report FY17'" -mailbox lsanders@testlabs.se -folder Inbox

Name Value
----
Received from TLEX01.testlabs.s...
Received from TLEX01.testlabs.s...
Received from TLEX01.testlabs.s...
Content-Type application/ms-tnef
Content-Transfer-Encoding binary
Subject Financial report FY17
Thread-Topic Financial report FY17
Thread-Index AQHSxQA/Y8uKyubzPEaDaK...
Date Thu, 4 May 2017 20:00:...
Message-ID <7ba9c379e1d54635a5e45...
Accept-Language sv-SE, en-US
Content-Language sv-SE
X-MS-Has-Attach yes
X-MS-Exchange-Organization-SCL -1
X-MS-TNEF-Correlator <7ba9c379e1d54635a5e45...
MIME-Version 1.0
X-MS-Exchange-Organization-MessageDirectionality Originating
X-MS-Exchange-Organization-AuthSource TLEX01.testlabs.se
X-MS-Exchange-Organization-AuthAs Internal
X-MS-Exchange-Organization-AuthMechanism 04
X-Originating-IP [192.168.0.2]
X-MS-Exchange-Organization-Network-Message-Id b300227c-6b2a-4b0d-f6a...
Return-Path emoss@testlabs.se
X-MS-Exchange-Organization-AVStamp-Enterprise 1.0
X-MS-Exchange-Transport-EndToEndLatency 00:00:18.3505808

[PS] C:\Scripts>
```

546

```
Machine: TLEX01.testlabs.se
[PS] C:\>Remove-MailboxItem -PrimarySmtpAddress emoss@testlabs.se -SearchQuery "Subject:'Free Surface Book'" -DeleteMode SoftDelete

Confirm
Are you sure you want to perform this action?
Performing the operation "Remove-MailboxItem" on target "Free Surface Book".
[Y] Yes [A] Yes to All [N] No [L] No to All [S] Suspend [?] Help
(default is "Y"):
```

551

```
Machine: TLEX01.testlabs.se
[PS] C:\>New-CalendarItem -Subject "Reboot Server"
>> -Body "Reboot EXCH-SRV01 server after 5PM today"
>> -Start (Get-Date).AddHours(6)
>> -End (Get-Date).AddHours(7)
>> -Mailbox sysadmin@testlabs.se
>> -RequiredAttendees helpdesk@testlabs.se,administrator@testlabs.se
[PS] C:\>
```

555

```
Machine: TLEX01.testlabs.se
[PS] C:\Scripts>.\AttachmentExport.ps1 -folder Inbox
>> -mailbox emoss@testlabs.se
>> -query "attachment:docx"
>> -path c:\Export
[PS] C:\Scripts>.\AttachmentExport.ps1 -folder Inbox
>> -mailbox emoss@testlabs.se
>> -query "attachment:xlsx"
>> -path c:\Export
[PS] C:\Scripts>
```

export

File Home Share View

< > << Local Disk (C:) > export Search export

	Name	Date modified	Type	Size
	Document.docx	5/6/2017 8:29 PM	Office Open XML ...	
	Spreadsheet.xlsx	5/6/2017 8:31 PM	XLSX File	

560