

3-3-3：每日巡检-查询邮件服务器服务状态并输出HTML

作者简介

曾垂鑫，毕业于中国人民大学商务管理专业。微软（2013-2017五届）MVP，具有丰富的项目实施和解决方案经验，51CTO传媒推荐博客、博客之星，微软MCP/MCTS/MCITP/MCSA/MCSE认证系统专家和解决方案顾问。
属于实战派的讲师，具备丰富的万人规模以上企业的运维经验。课程内容侧重于实战实用。

曾垂鑫的博客地址：<http://543925535.blog.51cto.com/>

曾垂鑫的课程地址：http://edu.51cto.com/lecturer/index/user_id-639838.html

课程后续会形成完善的Windows运维工程师路线图，涵盖企业常用的Windows平台运维技术，后期课程包括但不限于AD、Exchange、Windows、System Center、Powershell、Hyper-v、Office 365等。

1) 脚本内容

```
Add-PSSnapin *exchange*
```

```
$ServicesFileName = "C:\PS\Exchange服务状况报告.htm"
```

```
$serverlist = "c:\ps\sl.txt"
```

```
New-Item -ItemType file $ServicesFileName -Force
```

```
Function writeHtmlHeader
```

```
{
```

```
param($fileName)
```

```
$date = ( get-date ).ToString('MM/dd/yyyy')
```

```
Add-Content $fileName "<html>"
```

```
Add-Content $fileName "<head>"
```

```
Add-Content $fileName "<meta http-equiv='Content-Type' content='text/html; charset=utf8'>"
```

```
Add-Content $fileName '<title>Exchange每日巡检报告</title>'
```

```
add-content $fileName '<STYLE TYPE="text/css">'
```

```
add-content $fileName "<!--"
```

```
add-content $fileName "td {"
```

```
add-content $fileName "font-family: Tahoma;"
```

```
add-content $fileName "font-size: 11px;"
```

```
add-content $fileName "border-top: 1px solid #999999;"
```

```
add-content $fileName "border-right: 1px solid #999999;"
```

```
add-content $fileName "border-bottom: 1px solid #999999;"
```

```
add-content $fileName "border-left: 1px solid #999999;"
```

```
add-content $fileName "padding-top: 0px;"
```

```
add-content $fileName "padding-right: 0px;"
```

```
add-content $fileName "padding-bottom: 0px;"
```

```
add-content $fileName "padding-left: 0px;"
```

```
add-content $fileName "}"
```

```
add-content $fileName "body {"
```

```
add-content $fileName "margin-left: 5px;"
```

```
add-content $fileName "margin-top: 5px;"
```

```
add-content $fileName "margin-right: 0px;"
```

```
add-content $fileName "margin-bottom: 10px;"
```

```
add-content $fileName ""
```

```

add-content $fileName "table {"
add-content $fileName "border: thin solid #000000;"
add-content $fileName "}"
add-content $fileName "-->"
add-content $fileName "</style>"
add-content $fileName "</head>"
add-content $fileName "<body>"
add-content $fileName "<table width='100%'"
add-content $fileName "<tr bgcolor='#CCCCCC'"
add-content $fileName "<td colspan='7' height='25' align='center'"
add-content $fileName "<font face='tahoma' color='#003399' size='4'"<strong>Exchange服务报告 - $date</strong>"
add-content $fileName "</font>"
add-content $fileName "</td>"
add-content $fileName "</tr>"
add-content $fileName "</table>"
}

```

Function writeTableHeader

```

{
param($fileName)
Add-Content $fileName "<tr bgcolor=#CCCCCC>"
Add-Content $fileName "<td width='10%' align='center'">服务器名称</td>"
Add-Content $fileName "<td width='40%' align='center'">服务名称</td>"
Add-Content $fileName "<td width='10%' align='center'">服务运行状态</td>"
Add-Content $fileName "<td width='20%' align='center'">用户名</td>"
Add-Content $fileName "<td width='10%' align='center'">收集状态</td>"
Add-Content $fileName "<td width='10%' align='center'">服务启动模式</td>"
Add-Content $fileName "</tr>"
}

```

Function writeHtmlFooter

```

{
param($fileName)
Add-Content $fileName "</body>"
Add-Content $fileName "</html>"
}

```

Function writeServiceInfo

```

{
param($fileName,$SystemName,$DisplayName,$StartMode,$State,$StartName,$Status,$Description)
if ($State -eq "Running")
{
Add-Content $fileName "<tr>"
Add-Content $fileName "<td>$SystemName</td>"
Add-Content $fileName "<td>$DisplayName</td>"
Add-Content $fileName "<td bgcolor='#00FF00' align=center>$State</td>"
Add-Content $fileName "<td>$StartName</td>"
Add-Content $fileName "<td>$Status</td>"
Add-Content $fileName "<td>$StartMode</td>"
Add-Content $fileName "</tr>"
}
elseif ($State -eq "Stopped")

```

```

{
Add-Content $fileName "<tr>"
Add-Content $fileName "<td>$SystemName</td>"
Add-Content $fileName "<td>$DisplayName</td>"
Add-Content $fileName "<td bgcolor='#FF0000' align=center>$State</td>"
Add-Content $fileName "<td>$StartName</td>"
Add-Content $fileName "<td>$Status</td>"
Add-Content $fileName "<td>$StartMode</td>"
Add-Content $fileName "</tr>"
}
else
{
Add-Content $fileName "<tr>"
Add-Content $fileName "<td>$SystemName</td>"
Add-Content $fileName "<td>$DisplayName</td>"
Add-Content $fileName "<td bgcolor='#FBB917' align=center>$State</td>"
Add-Content $fileName "<td>$StartName</td>"
Add-Content $fileName "<td>$Status</td>"
Add-Content $fileName "<td>$StartMode</td>"
Add-Content $fileName "</tr>"
}
}

```

Function sendEmail

```

{ param($from,$to,$subject,$smtphost,$htmlFileName)
$body = Get-Content $htmlFileName
$smtp= New-Object System.Net.Mail.SmtpClient $smtphost
$msg = New-Object System.Net.Mail.MailMessage $from, $to, $subject, $body
$msg.IsBodyHtml = $true
$smtp.send($msg)
}

```

writeHtmlHeader \$ServicesFileName

foreach (\$server in Get-Content \$serverlist)

```

{
Add-Content $ServicesFileName "<table width='100%'><tbody>"
Add-Content $ServicesFileName "<tr bgcolor='#CCCCCC'>"
Add-Content $ServicesFileName "<td width='100%' align='center' colSpan=6><font face='tahoma' color='#003399' size='2'><strong> $server </strong></font></td>"
Add-Content $ServicesFileName "</tr>"
}

```

writeTableHeader \$ServicesFileName

```

$ServicesList = Get-WmiObject -Class Win32_Service -ComputerName $server | `
Where-Object {($_.DisplayName -match "exch*") -and ($_.Displayname -notmatch "Pop3") `
-and ($_.Displayname -notmatch "Imap4") -and ($_.Displayname -notmatch "Hyper-v") `
-and ($_.Displayname -notmatch "Symantec") -and ($_.Displayname -notmatch "Windows Server Backup") `
-and ($_.Displayname -notmatch "Quest") -and ($_.Displayname -notmatch "ScanMail") `
-and ($_.Displayname -notmatch "Host Controller") -and ($_.Displayname -notmatch "Tracing Service") `
-and ($_.Displayname -notmatch "EdgeSync")}

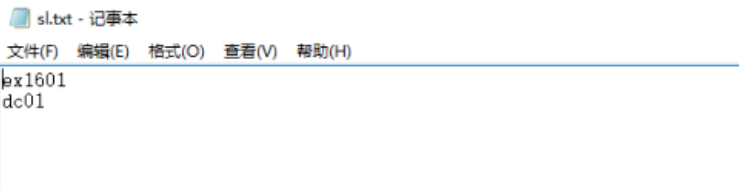
```

```
foreach ($item in $ServicesList)
{
    writeServiceInfo $ServicesFileName $item.SystemName $item.DisplayName $item.StartMode $item.State $item.StartName
    $item.Status $item.Description
}
Add-Content $ServicesFileName "</table>"
}

writeHtmlFooter $ServicesFileName
$date = ( get-date ).ToString('yyyy/MM/dd')

### Configuring Email Parameters
sendEmail PScriptAlert@contoso.com administrator@contoso.com "[系统组每日巡检]Exchange服务状况报告 - $Date"
172.168.1.10 $ServicesFileName
```

2) 服务器列表sl.txt文件



3) 输出结果



Exchange服务报告 - 04/21/2017

ex1601					
服务器名称	服务名称	服务运行状态	用户名	收集状态	服务启动模式
EX1601	Microsoft Exchange 合规性审核	Stopped	LocalSystem	OK	Auto
EX1601	Microsoft Exchange Active Directory 拓扑	Running	LocalSystem	OK	Auto
EX1601	Microsoft Exchange 反垃圾邮件更新	Stopped	LocalSystem	OK	Auto
EX1601	Microsoft Exchange 合规性服务	Running	LocalSystem	OK	Auto
EX1601	Microsoft Exchange DAG 管理	Stopped	LocalSystem	OK	Auto
EX1601	Microsoft Exchange 邮箱传输传递	Running	NT AUTHORITY\NETWORK SERVICE	OK	Auto
EX1601	Microsoft Exchange 诊断	Running	LocalSystem	OK	Auto
EX1601	Microsoft Exchange 搜索	Running	LocalSystem	OK	Auto
EX1601	Microsoft Exchange 群集传输	Running	LocalSystem	OK	Auto
EX1601	Microsoft Exchange 运行状况管理器	Running	LocalSystem	OK	Auto
EX1601	Microsoft Exchange 运行状况管理器恢复	Running	LocalSystem	OK	Auto
EX1601	Microsoft Exchange 信息存储	Running	LocalSystem	OK	Auto
EX1601	Microsoft Exchange 邮箱助理	Running	LocalSystem	OK	Auto
EX1601	Microsoft Exchange 邮箱复制	Running	LocalSystem	OK	Auto
EX1601	Microsoft Exchange 通知代理	Stopped	LocalSystem	OK	Auto
EX1601	Microsoft Exchange 复制	Running	LocalSystem	OK	Auto
EX1601	Microsoft Exchange RPC 客户端访问	Running	LocalSystem	OK	Auto
EX1601	Microsoft Exchange Service 主机	Running	LocalSystem	OK	Auto