

How to manage Windows services via command line

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People are always looking for efficient ways to manage system tasks without leaving the terminal, even when using Windows. On Windows, services run in the background to keep the system and applications running smoothly. Instead of opening the Services Manager, many people prefer to manage Windows services through the command line. In today's tutorial, we will explore these methods and see how you can manage Windows services right from the terminal.

1. All ways to open Windows Services on Windows 10/8/7

1. Manage Windows service using sc.exe

sc.exe is a built-in command-line tool for managing Windows services. It allows you to configure, query, and control services directly from the terminal. With sc.exe, you can have complete control over Windows services without the need for the graphical Services Manager.

Check service status with sc

We can use the **sc query serviceName** command to check the status of a specific service. For example, we run the **sc query MySQL80** command to retrieve detailed information about the MySQL80 service, including its status:

```
C:\Windows\System32>sc query MySQL80
SERVICE_NAME: MySQL80
        TYPE               : 10  WIN32_OWN_PROCESS
        STATE                : 1  STOPPED
        WIN32_EXIT_CODE       : 0   (0x0)
        SERVICE_EXIT_CODE   : 0   (0x0)
        CHECKPOINT           : 0x0
        WAIT_HINT            : 0x0
C:\Windows\System32>
```

MySQL is not running on the machine at the moment.

Start a service with sc

To start a specific service using `sc.exe`, we can use the `sc start ServiceName` command . For example, we run `sc start MySQL80` to start the **MySQL80** service. To verify whether the service has started successfully, we can check the status of the service using the `sc query MySQL80` command :

```
C:\Windows\System32>sc start MySQL80

SERVICE_NAME: MySQL80
        TYPE               : 10  WIN32_OWN_PROCESS
        STATE                : 2  START_PENDING
                        (NOT_STOPPABLE, NOT_PAUSABLE, IGNORES_SHUTDOWN)
        WIN32_EXIT_CODE      : 0  (0x0)
        SERVICE_EXIT_CODE   : 0  (0x0)
        CHECKPOINT          : 0x3
        WAIT_HINT           : 0x3a98
        PID                 : 18636
        FLAGS                :

C:\Windows\System32>sc query MySQL80

SERVICE_NAME: MySQL80
        TYPE               : 10  WIN32_OWN_PROCESS
        STATE                : 4  RUNNING
                        (STOPPABLE, PAUSABLE, ACCEPTS_SHUTDOWN)
        WIN32_EXIT_CODE      : 0  (0x0)
        SERVICE_EXIT_CODE   : 0  (0x0)
        CHECKPOINT          : 0x0
        WAIT_HINT           : 0x0

C:\Windows\System32>
```

Stop a service with sc

You can stop a service to free up system resources. For example, the `sc stop MySQL80` command stops MySQL, which can be verified with the `sc query MySQL80` command :

```
C:\Windows\System32>sc stop MySQL80

SERVICE_NAME: MySQL80
        TYPE               : 10  WIN32_OWN_PROCESS
        STATE                : 3  STOP_PENDING
                        (STOPPABLE, PAUSABLE, ACCEPTS_SHUTDOWN)
        WIN32_EXIT_CODE      : 0  (0x0)
        SERVICE_EXIT_CODE   : 0  (0x0)
        CHECKPOINT          : 0x1
        WAIT_HINT           : 0x5265c00

C:\Windows\System32>sc query MySQL80

SERVICE_NAME: MySQL80
        TYPE               : 10  WIN32_OWN_PROCESS
        STATE                : 1  STOPPED
        WIN32_EXIT_CODE      : 0  (0x0)
        SERVICE_EXIT_CODE   : 0  (0x0)
        CHECKPOINT          : 0x0
        WAIT_HINT           : 0x0

C:\Windows\System32>
```

Create a new service using sc

We can create a new service using the `sc create` command . This command requires specifying the service name, executable path, and startup type. For example, to create a new service called **"mte"** that will start automatically on boot, type:

```
sc create mte binPath= "C:\Users\HPP\Desktop\Examples\Service.exe" start= auto
```

```
C:\Windows\System32>sc create mte binPath= "C:\Users\HP\Desktop\Examples\Service.exe" start= auto
[SC] CreateService SUCCESS
C:\Windows\System32>
```

Update a service using sc

We can use the **sc config** command to configure an existing service. For example, to change the startup type to manual, run the command:

```
sc config serviceName start= demand
```

```
C:\Windows\System32>sc config mte start= demand
[SC] ChangeServiceConfig SUCCESS
C:\Windows\System32>
```

Delete service using sc

When the service is no longer needed, we can permanently remove it from Windows with the command:

```
sc delete srviceName
```

```
C:\Windows\System32>sc delete mte
[SC] DeleteService SUCCESS
C:\Windows\System32>
```

2. Manage Windows services using the Net command

The net command in Windows allows us to manage services from the command line. This command allows users to start, stop, pause, resume, and query services without using the graphical Services Manager.

Start and stop services using the net command

We can start or stop Windows services using the **net start serviceName** and **net stop serviceName** commands respectively:

```
C:\Windows\System32>net start MySQL80
The MySQL80 service is starting.
The MySQL80 service was started successfully.

C:\Windows\System32>net stop MySQL80
The MySQL80 service is stopping.
The MySQL80 service was stopped successfully.
```

Pause and resume service using net command

Some Windows services support pausing and continuing instead of stopping completely. In that case, we can use the **net pause ServiceName** and **net continue ServiceName** commands respectively:

```
C:\Windows\System32>net pause MSSQLSERVER
The SQL Server (MSSQLSERVER) service was paused successfully.

C:\Windows\System32>net continue MSSQLSERVER
The SQL Server (MSSQLSERVER) service was continued successfully.

C:\Windows\System32>
```

Check service status with net command

The net command itself does not provide a direct way to check the status of a specific service, but we can use it in conjunction with the findstr command to filter the results. For example, to check if a specified service is running, type:

```
net start | findstr "ServiceName"
```

```
C:\Windows\System32>net start | findstr "MySQL80"
MySQL80

C:\Windows\System32>
```

If the specified service is running, the command returns the name of that service; otherwise, there is no output.

Manage remote services using the net command

We can use the net command to manage services on a remote computer by specifying the computer name. For example, the **net start ServiceName /S RemotePC** and **net stop ServiceName /S RemotePC** commands are used to start or stop services on a remote computer.

3. Manage Windows services using PowerShell cmdlets

PowerShell provides more advanced control over Windows services with built-in cmdlets such as Get-Service, Start-Service, Stop-Service, and Restart-Service. These cmdlets allow users to check the status of a service, start or stop the service, and even restart it when needed.

PowerShell cmdlets provide detailed output, including service status, display name, and service dependencies. These cmdlets enable scripting and automation, allowing efficient management of multiple services.

PowerShell's flexibility and powerful features make it the preferred tool for Windows service management administrators.

Get service status using cmdlet

We can use the cmdlet **Get-Service -Name ServiceName** to get detailed information about the specified service. For example, the following command returns the status of the MySQL80 service, showing whether the service is running or stopped:

```
Get-Service -Name MySQL80
```

```
PS C:\WINDOWS\system32> Get-Service -Name MySQL80

Status Name          DisplayName
-----
Running MySQL80      MySQL80

PS C:\WINDOWS\system32>
```

Query service using PowerShell cmdlet

We can use the Get-Service command to query services based on specific criteria. For example, we can retrieve all running services using the command:

```
Get-Service | Where-Object {$_.Status -eq 'Running'}
```

```
PS C:\WINDOWS\system32> Get-Service | Where-Object {$_.Status -eq 'Running'}

Status Name          DisplayName
-----
Running AppHostSvc    Application Host Helper Service
Running AppInfo      Application Information
Running AppXSvc    AppX Deployment Service (AppXSVC)
Running AudioEndpointBu... Windows Audio Endpoint Builder
Running Audiosrv   Windows Audio
Running AzureAttestService AzureAttestService
Running BFE        Base Filtering Engine
Running BluetoothUserSe... Bluetooth User Support Service_3796bbe
Running BrokerInfrastru... Background Tasks Infrastructure Ser...
Running BTAGService Bluetooth Audio Gateway Service
Running BthAvctpSvc AVCTP service
Running bthserv    Bluetooth Support Service
Running camsvc     Capability Access Manager Service
Running cbdhsvc_3796bbe Clipboard User Service_3796bbe
Running CDPService Connected Devices Platform Service
Running CDPUserSvc_3796bbe Connected Devices Platform User Ser...
Running ClickToRunSvc Microsoft Office Click-to-Run Service
Running CoreMessagingRe... CoreMessaging
Running cpplspcon Intel(R) Content Protection HDCP Se...
Running CryptSvc   Cryptographic Services
Running DcomLaunch DCOM Server Process Launcher
Running DeviceAssociati... Device Association Service
Running DeviceInstall Device Install Service
```

Start and stop services using PowerShell cmdlets

We can start or stop a specific service using the Start-Service and Stop-Service cmdlets respectively. For example, use the following PowerShell command to start, stop, and check the status of the MySQL80 service:

```
Start-Service -Name MySQL80 Stop-Service -Name MySQL80 Get-Service -Name MySQL80
```

```
PS C:\WINDOWS\system32> Start-Service -Name MySQL80
PS C:\WINDOWS\system32>
PS C:\WINDOWS\system32> Stop-Service -Name MySQL80
PS C:\WINDOWS\system32>
PS C:\WINDOWS\system32> Get-Service -Name MySQL80

Status Name          DisplayName
-----
Stopped MySQL80      MySQL80

PS C:\WINDOWS\system32>
```

Change service startup type using PowerShell cmdlet

PowerShell cmdlets allow us to update the service startup type. For example, we can run the following cmdlets to configure a service to start automatically on system startup, require manual startup, or be disabled, respectively:

```
Set-Service -Name ServiceName -StartupType Automatic Set-Service -Name ServiceName
```

These cmdlets help administrators manage service behavior efficiently, ensuring essential services start when needed, while preventing unnecessary services from running.

Remote service management using cmdlets

PowerShell also allows you to manage services on a remote computer by specifying their names. For example, the **Get-Service -Name ServiceName -ComputerName RemotePC** command retrieves the status of a specific service running on a remote computer named RemotePC, allowing administrators to monitor services remotely.

Similarly, the **Restart-Service -Name ServiceName -ComputerName serviceName** command attempts to restart the specified service on the remote computer. This command ensures that the service restarts without requiring direct access to the machine. However, managing the service remotely requires appropriate permissions and enabling PowerShell remoting.

4. Automate service management tasks

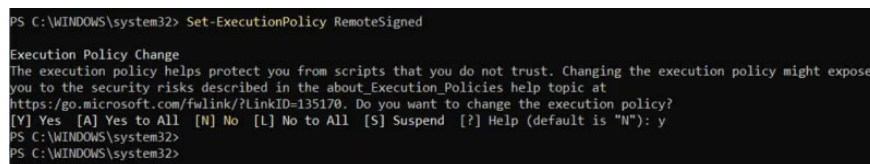
PowerShell scripts allow for automated service management, making it easier to monitor and control Windows services without manual intervention. We can create a script that continuously checks the status of a particular service and restarts it if it stops unexpectedly.

For example, the following script checks if the MySQL80 service is running and restarts it if it is stopped:

```
$serviceName = "MySQL80" $service = Get-Service -Name $serviceName if ($service.Status -ne 'Running') {
```

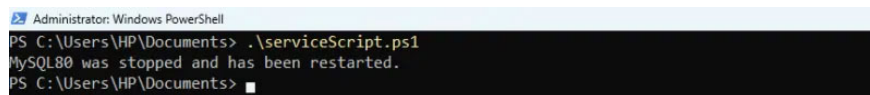
By default, Windows restricts scripts from running. To allow execution, first execute the command:

```
Set-ExecutionPolicy RemoteSigned
```



```
PS C:\WINDOWS\system32> Set-ExecutionPolicy RemoteSigned
Execution Policy Change
The execution policy helps protect you from scripts that you do not trust. Changing the execution policy might expose you to the security risks described in the about_Execution_Policies help topic at https://go.microsoft.com/fwlink/?LinkID=135170. Do you want to change the execution policy?
[Y] Yes [A] Yes to All [N] No [L] No to All [S] Suspend [?] Help (default is "N"): y
PS C:\WINDOWS\system32>
PS C:\WINDOWS\system32>
```

Now navigate to the script location and run the command `.serviceScript.ps1` to run the script:



```
Administrator: Windows PowerShell
PS C:\Users\HP\Documents> .\serviceScript.ps1
MySQL80 was stopped and has been restarted.
PS C:\Users\HP\Documents> █
```

Managing Windows services from the command line gives you complete control without relying on a graphical service manager. Whether you use SC.EXE, NET, or PowerShell CMDLET, each method provides efficient ways to start, stop, and configure services.

PowerShell scripting capabilities, which make automation easy, allow you to monitor and manage services seamlessly. By mastering these tools, you can troubleshoot, optimize system performance, and ensure critical

services run smoothly.

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