

Using SCP & SSH commands to upgrade UPS firmware via NMC

Steps

1. Use “scp” to transfer firmware image file to root folder of NMC. For example: “scp <image_file> <username>@<NMC_ip_address>:\<image_file>”
2. Use ssh to log into NMC, issue “upswupdate -install -file A:\<image_file>” command to start upgrading UPS firmware.

Example

- NMC IP address is 10.191.15.107
- Username is apc.
- Image file: SRTL1034UPS_06-7.enc
- OS: Windows 10

```
C:\fw_image>dir
Volume in drive C is Windows
Volume Serial Number is C0FF-E65A

Directory of C:\fw_image

09/19/2024  05:06 PM    <DIR>          .
09/19/2024  05:06 PM    <DIR>          ..
08/14/2024  08:56 AM             1,601,152 SRTL1034UPS_06-7.enc  <- firmware image
file on local PC.
                1 File(s)            1,601,152 bytes
                2 Dir(s)      240,162,951,168 bytes free

C:\fw_image>scp SRTL1034UPS_06-7.enc apc@10.191.15.107:\SRTL1034UPS_06-7.enc  <-
transfer file to NMC.
apc@10.191.15.107's password:
SRTL1034UPS_06-7.enc                                     100% 1556KB
161.6KB/s   00:09

C:\fw_image>ssh apc@10.191.15.107                                     <- ssh into NMC.
apc@10.191.15.107's password:

Schneider Electric                                     Network Management Card AOS      v2.5.0.8
(c) Copyright 2023 All Rights Reserved Smart-UPS APP                    v2.5.0.6
-----
Name       : apc753330                                     Date : 09/19/2024
Contact    : Unknown                                       Time : 17:08:13
Location   : Unknown                                       User : Super User
Up Time    : 1 Day 6 Hours 44 Minutes                       Stat : P+ N4+ N6+ A+
-----
IPv4       : Enabled                                       IPv6       : Enabled
Ping Response : Enabled
-----
HTTP       : Disabled                                       HTTPS      : Enabled
FTP        : Enabled                                       Telnet    : Disabled
SSH/SCP    : Enabled                                       SNMPv1    : Disabled
SNMPv3     : Disabled                                       Modbus TCP : Disabled
```

```

BACnet/IP          : Disabled
-----
Super User         : Enabled           RADIUS           : Disabled
Administrator     : Disabled         Device User      : Disabled
Read-Only User    : Disabled         Network-Only User : Disabled

Type ? for command listing
Use tcpip command for IP address(-i), subnet(-s), and gateway(-g)

apc>dir            <- check the file is uploaded to root folder.
E000: Success
  1024 May 12 2023  apc_hw21_aos_2.5.0.8.bin
 6795900 May 12 2023  apc_hw21_su_2.5.0.6.bin
 45000 Sep 19 17:08  config.ini
    0 Jul 22 2023   db/
    0 Jul 22 2023   ssl/
    0 Jul 22 2023   ssh/
    0 Jul 22 2023   logs/
    0 Jul 22 2023   sec/
    0 Jul 22 2023   fw1/
    0 Jul 22 2023   email/
    0 Jul 22 2023   eapol/
    0 Jul 22 2023   certs/
    0 Jul 22 2023   tmp/
    0 Jul 22 2023   upsfw/
 1601152 Sep 19 17:07  SRTL1034UPS_06-7.enc      <- Firmware has
been uploaded to root folder.

apc>upswupdate                                         <- Print the help
of upswupdate command.
E102: Parameter Error
Usage: upswupdate -- Initiate UPS Firmware Update
  upswupdate <-install <-file filepath | -ver versionspec> [-progress bar] |
    -list (list available FW versions)
    -status [-progress bar] |
    -lastresult |
    -info <-file filepath | -ver versionspec>>
-- Examples:
-- Get information about version 1.8:
-- apc> upswupdate -info -ver "ID18UPS 1.8"
-- Install an update from the USB drive:
-- apc> upswupdate -install -file "C:\upsw\SM18UPS_09-1.enc"
-- Note: File paths refer to drives attached to the NMC.

apc>upswupdate -install -file A:\SRTL1034UPS_06-7.enc  <- Install UPS
firmware.
E000: Success

```

Note

1. If you encounter “**scp: Connection closed**” error as shown below when you use scp command to transfer firmware image file to NMC, you need to add “-O” option.

```
C:\fw_image>scp SRTL1034UPS_06-7.enc apc@10.191.15.107:\SRTL1034UPS\_06-7.enc  
apc@10.191.15.107's password:  
scp: Connection closed
```

Example of adding “-O” option to force using the original SCP protocol.

```
C:\fw_image>scp -O SRTL1034UPS_06-7.enc apc@10.191.15.107:\SRTL1034UPS\_06-7.enc  
apc@10.191.15.107's password:  
SRTL1034UPS_06-7.enc 100%  
1556KB 161.6KB/s 00:09
```

This is the description of “-O” option.

```
-O Use the original SCP protocol for file transfers instead of the SFTP protocol. Forcing the use of the SCP protocol may be necessary for servers that do not implement SFTP, for backwards-compatibility for particular filename wildcard patterns and for expanding paths with a '~' prefix for older SFTP servers. This mode is the default.
```

Other Information

1. If want to install OpenSSH on Windows system, you can follow the instructions described in this link - [Installing and Enabling OpenSSH on Windows](#).
2. If you need to download the firmware for SRTL3KRM1UNC, SRTL2K2RM1UNC units, you can download it from this link - https://www.se.com/us/en/download/document/SPD_CLII-AXFCNC_EN/.