Upgrade NVR-DVR using serial cable

NVR –DVR can upgrade using web browser or local gui. in some scenario where upgrade fail and not able to access the device, in this case need serial cable.

Need special cable or use full baud cable, if not have cable please contact RMA center.

NVR FW upgrade corrupt – Cases

1, If the NVR – DVR use custom FW, don't upgrade directly without consult the Hikvision support.

2, Upgrade from Old FW to Latest FW without upgrading the proper step.

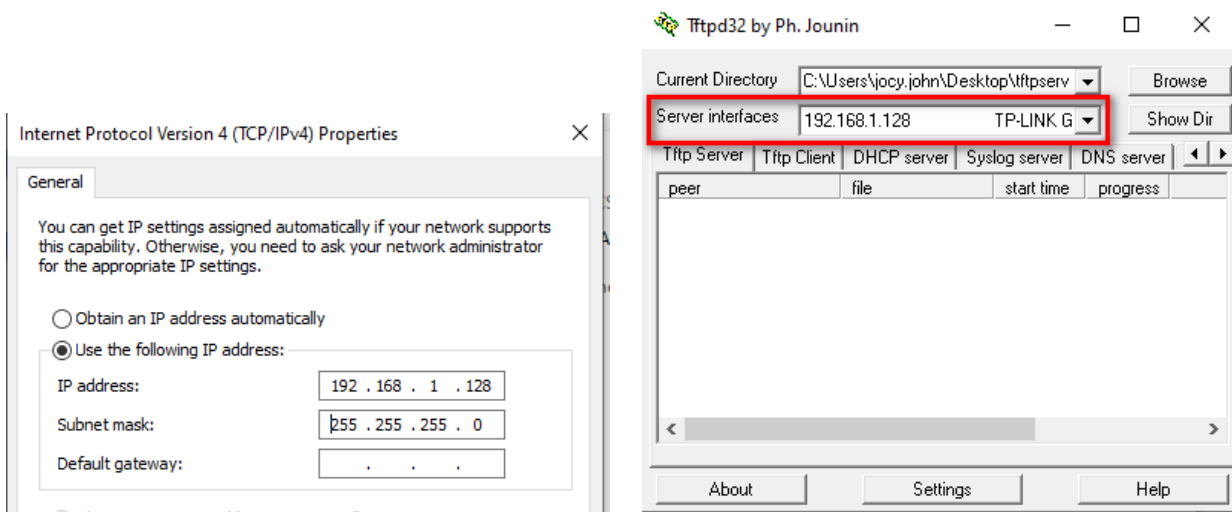   E.g. Upgrade only like V3.4.XX – V4.1.XX - V4.2.XX - 4.4.XX

Tools required for upgrade:

1, Serial cable

2, Putty or Secure CRT

3, TFTP tool : http://philippe.jounin.pagesperso-orange.fr/tftp-server-for-windows.html

Step to upgrade.

1, Connect serial cable to device

2, Connect network of device connect to your PC /Laptop. Keep PC IP as 192.168.1.128 or 192.0.0.128
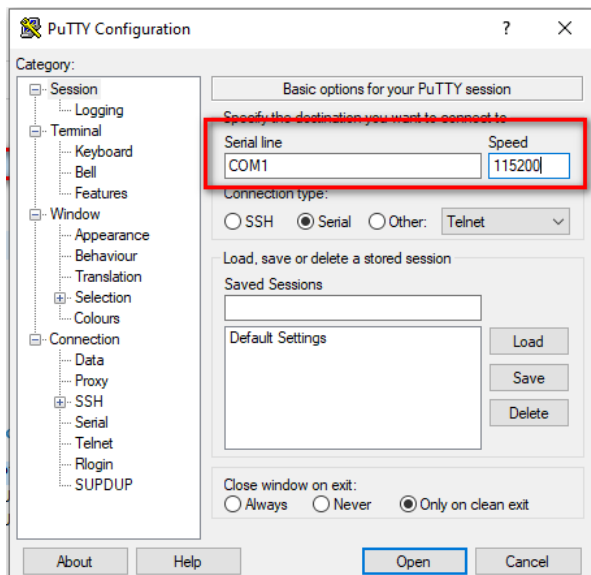
3, Copy the FW to the TFTP folder

Tftpd32 by Ph. Jounin

Current Directory: C:\Users\jocy.john\Desktop\tftpserv ▼ | Browse

Server interfaces: 192.168.1.128   TP-LINK G ▼ | Show Dir

| Tftp Server | Tftp Client | DHCP server | Syslog server | DNS server | ◄ | ► |

peer	file	start time	progress

About | Settings | Help

Internet Protocol Version 4 (TCP/IPv4) Properties ✕

General

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

○ Obtain an IP address automatically

◉ Use the following IP address:

IP address: 192 . 168 . 1 . 128

Subnet mask: 255 . 255 . 255 . 0

Default gateway: .   .

---

tftpserv ▼ ↻

Name	Date modified	Type	Size
digicap.dav	3/24/2021 8:37 PM	DAV File	52,118 KB
mvcli.dat	2/17/2014 5:12 PM	DAT File	1,315 KB
Tftpd32	9/30/2016 11:41 PM	Application	211 KB
tftprc_en.dll	12/5/2007 6:29 AM	Application exten...	28 KB
tftpserv	12/4/2007 6:35 AM	Application	240 KB
tftpserv	12/5/2007 6:29 AM	Configuration sett...	1 KB
tftpserv	5/21/2015 1:53 PM	Text Document	71 KB

Select correct Serial port, Baud should be 115200

∨ 🖥 Ports (COM & LPT)
　　🖥 High-Speed USB Serial Port (COM1)
　　🖥 High-Speed USB Serial Port (COM2)

PuTTY Configuration ? ✕

Category:

- Session
  - Logging
- Terminal
  - Keyboard
  - Bell
  - Features
- Window
  - Appearance
  - Behaviour
  - Translation
  - Selection
  - Colours
- Connection
  - Data
  - Proxy
  - SSH
  - Serial
  - Telnet
  - Rlogin
  - SUPDUP

Basic options for your PuTTY session

Specify the destination you want to connect to

Serial line   Speed
COM1   115200

Connection type:
○ SSH ◉ Serial ○ Other: Telnet ▼

Load, save or delete a stored session

Saved Sessions

Default Settings | Load
                 | Save
                 | Delete

Close window on exit:
○ Always ○ Never ◉ Only on clean exit

About | Help | Open | Cancel

Start the Device –Press CTRL + U.

```
U-Boot 2010.06-svn (Dec 28 2015 - 10:42:45)[V1.2.1]

Protected at offset: 0x0, size:0x40000 Protection status:[0x22f]=>[0x22f].
Hit ctrl+u to stop autoboot:   0

This program will upgrade software.
**********************************************************
*   ATTENTION!! PLEASE READ THIS NOTICE CAREFULLY!      *
*   Don't reset machine,or anything that interrupt it.  *
*   The upgrade process must finish in 10 minutes!      *
*   If this program fails,machine might be  unusable,    *
*   and you will need to reflash again.                  *
*   If you find this too risky,power off machine now.   *
**********************************************************

Now press [u/U] key to upgrade software: █
```

Type U, input details

```
Now press [u/U] key to upgrade software: u
File system error,please upgrade by TFTP

Please input ip address of device: 192.168.1.64
Please input ip address of upgrade server: 192.68.1.128
Confirm?(y/n): █
```

TFTP will start send data which show error, Change the IP of PC to 192.0.0.128, restart the step.

```
TFTP from server 192.68.1.128; our IP address is 192.168.1.64; sending through gateway 192.0.0.1
Download Filename 'digicap.dav'.
Download to address: 0x40008000
Downloading: T T T T T T T T T T T T T T T T T T T T T █
```

After change IP and restart step ,Data start sending .

```
Now press [u/U] key to upgrade software: u
File system error,please upgrade by TFTP

Please input ip address of device: 192.168.1.64
Please input ip address of upgrade server: 192.68.1.128
Confirm?(y/n): y
timeout for link [4999]!
MAC:   54-C4-15-E1-8E-9C
TFTP from server 192.68.1.128; our IP address is 192.168.1.64; sending through gateway 192.0.0.1
Download Filename 'digicap.dav'.
Download to address: 0x40008000
Downloading: T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T
 T T T T T T T T T T T T T T T T T T
Retry count exceeded; starting again
TFTP from server 192.68.1.128; our IP address is 192.168.1.64; sending through gateway 192.0.0.1
Download Filename 'digicap.dav'.
Download to address: 0x40008000
Downloading: T T T T T T T T T T T T T T T T
Abort

Please input ip address of device: 192.0.0.64
Please input ip address of upgrade server: 192.0.0.128
Confirm?(y/n): y
timeout for link [5000]!
MAC:   54-C4-15-E1-8E-9C
TFTP from server 192.0.0.128; our IP address is 192.0.0.64
Download Filename 'digicap.dav'.
Download to address: 0x40008000
Downloading: ##█
```

Tftpd32 by Ph. Jounin

digicap.dav to 192.0.0.64

File size : 53368624
2210808 Bytes sent   1105404 Bytes/sec

Browse
Show Dir

192.0.0.64:2001   <digicap.dav<   09:44:35   4%

About   Settings   Help

```
start to write files to partition 0...
Configures yaffs mount nand success!
10-1.   write nand/headEx len: 1024
10-2.   write nand/uImage len: 9735584
10-3.   write nand/start.sh len: 11992
10-4.   write nand/sys_app.tar.lzma len: 26235552
10-5.   write nand/gui_res.tar.gz len: 9194720
10-6.   write nand/webs.tar.lzma len: 8187504
10-7.   write nand/TX1_Version.bin len: 40
10-8.   write nand/RSA len: 24
10-9.   write nand/new_10.bin len: 808
10-10.  write flag file nand/version.bin len: 4
update partition 0 success!

start to write files to partition 1...
Configures yaffs mount nand1 success!
10-1.   write nand1/headEx len: 1024
10-2.   write nand1/uImage len: 9735584
10-3.   write nand1/start.sh len: 11992
10-4.   write nand1/sys_app.tar.lzma len: 26235552
10-5.   write nand1/gui_res.tar.gz len: 9194720
10-6.   write nand1/webs.tar.lzma len: 8187504
10-7.   write nand1/TX1_Version.bin len: 40
10-8.   write nand1/RSA len: 24
10-9.   write nand1/new_10.bin len: 808
10-10.  write flag file nand1/version.bin len: 4
update partition 1 success!
Press ENTER key to reboot
```

Once completed reboot, you can access the NVR using web browser or Local GUI. You can see in SADP tool

	ID	▲	Device Type		Status		IPv4 Address		Port		Max. Bond Qua...	Can be bonded?	...	Software Version	
☐	001		DS-7608NI-I2/8P		Inactive		169.254.105.2		8000		0	No		V4.40.015build 200817	

Some Common tools –

RS232 USB cable

Full Baud cable