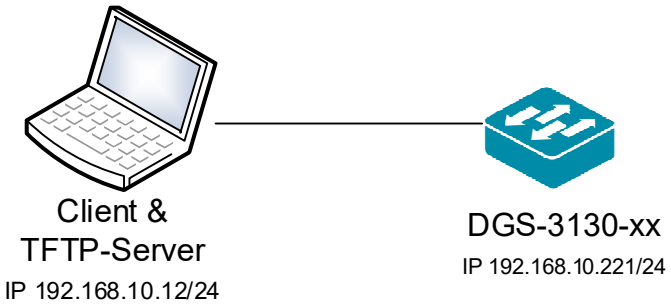
HowTo: Firmware Update DGS-3130 Series on CLI

[Requirements]

1. DGS-3130-xx Stack (or single unit) with firmware version below 1.10B21
2. TFTP-Server tool (f.e. TFTPD32)

[Topology]

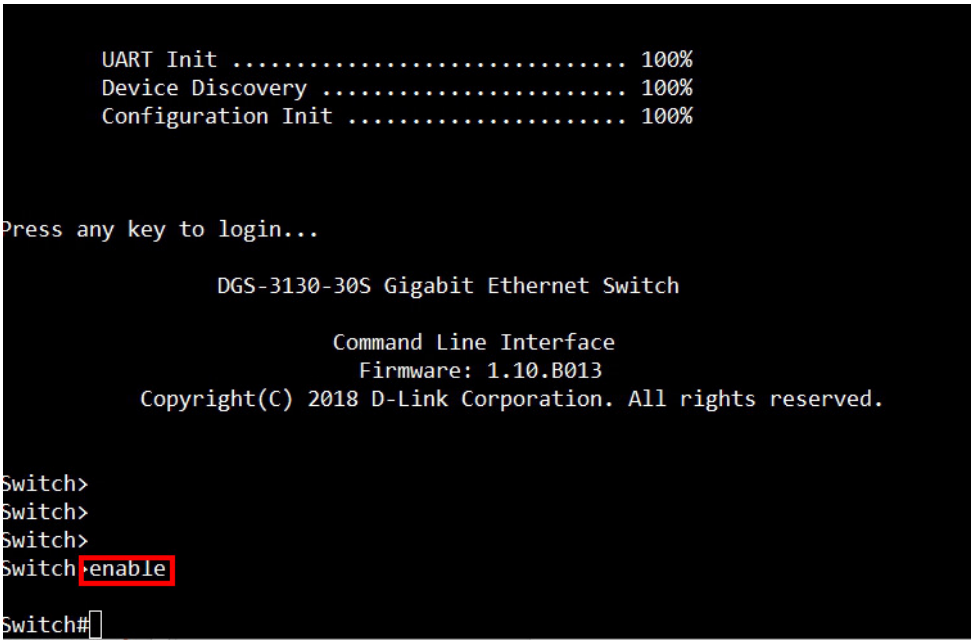


[Preparations]

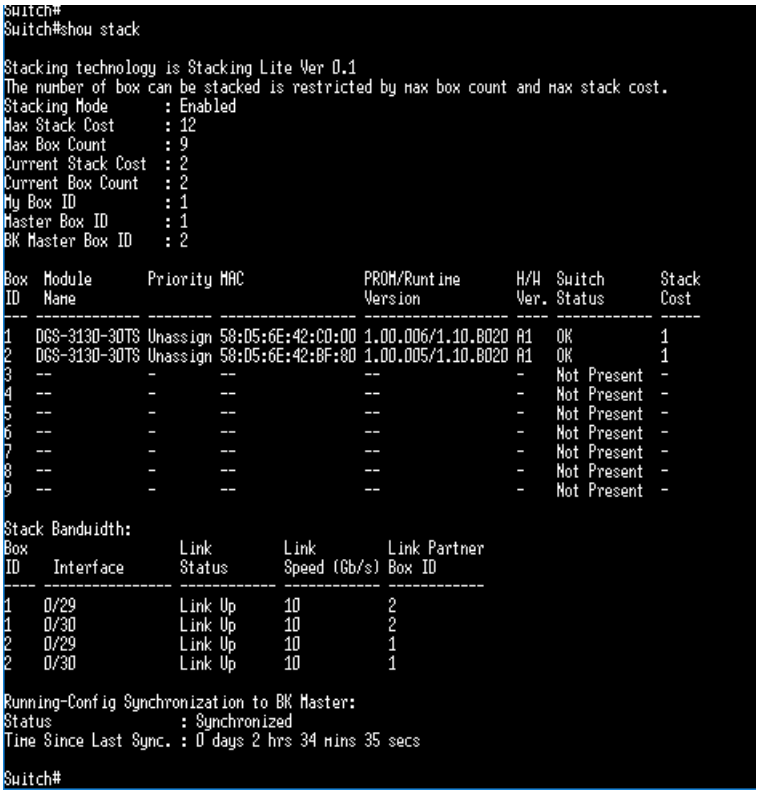
- ⇨ the DGS-3130-xx uses by default and in factory settings the IP 10.90.90.90/8
- ⇨ before proceeding, either change your PCs or Switch's IP according to you environment
- ⇨ please enable and define SSH or Telnet access on the WebGUI before updating the firmware by CLI

1. connect to the switch/stack by telnet/ssh/console

    a. enter for your session the „Enable“ level



2. check your stacking status and of how many devices are within the stack
    a. show stack



3. check which are the boot files to ensure not to delete the active files
    a. show boot

```
Switch#show boot

Unit 1
 Boot image: /c:/runtime1120.had
 Boot config: /c:/config1

Unit 2
 Boot image: /c:/RUN_110B020
 Boot config: /c:/config1


Switch#
```

4. check the free space of the unit/units
    a. dir unit1:/c:
    b. dir unit2:/c:
    c. repeat this command until you reached the last unit (f.e. dir unit5:/c:)

```
Switch#
Switch#dir unit1:/c:

Directory of c:
1   dru            0 Jan 01 1970 01:00:49  crashlogs
2   -ru          829 May 28 2019 14:27:46  config1
3   -ru     26138485 May 28 2019 14:49:14  runtime1120.had
4   -ru     25977895 May 28 2019 14:35:35  runtime1014.had

94371840 bytes total (42253312 bytes free)

Switch#dir unit2:/c:

Directory of /unit2:/c:
1   dru            0 Jan 01 1970 00:00:47  crashlogs
2   -ru     26138485 May 27 2019 09:51:33  RUN_110B020
3   -ru     25100111 May 24 2019 13:40:05  RUN_101B027
4   -ru          687 May 27 2019 10:29:21  config1

94371840 bytes total (43130880 bytes free)

Switch#
```

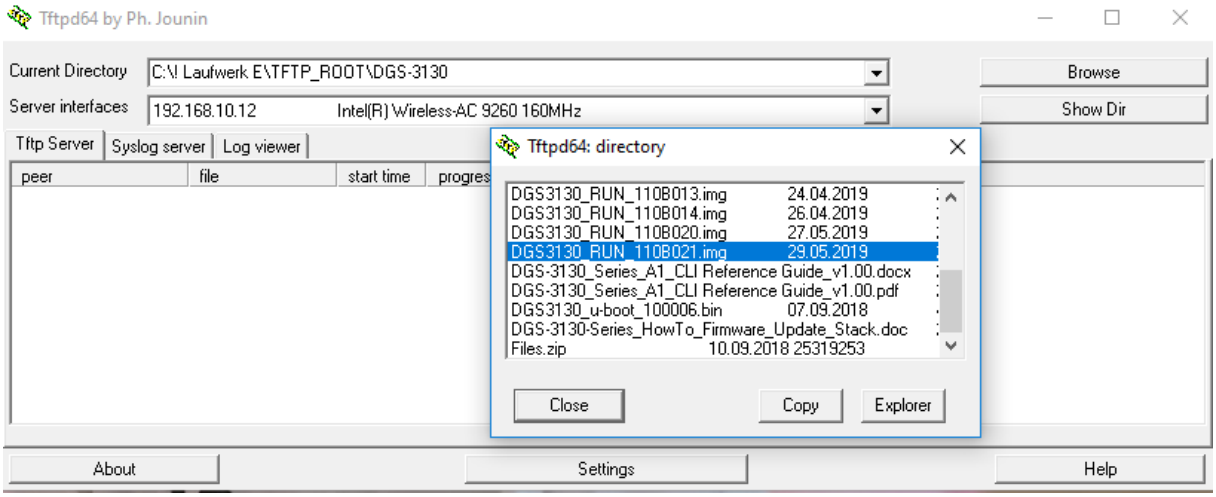
5. if there are already 2 or more firmware files existing it is required to delete the ones not used
    a. delete /unit1:/c:/runtime1014.had
    b. delete /unit2:/c:/RUN_101B027
    c. repeat this for all your other units

```
Switch#delete /unit1:/c:/runtime1014.had

Delete /unit1:/c:/runtime1014.had? (y/n) [n] y

File is deleted



Switch#delete /unit2:/c:/RUN_101B027

Delete /unit2:/c:/RUN_101B027? (y/n) [n] y

File is deleted

Switch#
```

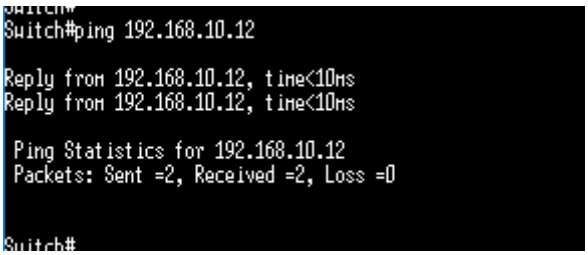
6. check the free space of the unit/units again
    a. dir unit1:/c:
    b. dir unit2:/c:
    c. repeat this command until you reached the last unit (f.e. dir unit5:/c:)

```
Switch#dir unit1:/c:

Directory of c:
1   dru            0 Jan 01 1970 01:00:49  crashlogs
2   -ru          829 May 28 2019 14:27:46  config1
3   -ru     26138485 May 28 2019 14:49:14  runtime1120.had

94371840 bytes total (68231168 bytes free)

Switch#dir unit2:/c:

Directory of /unit2:/c:
1   dru            0 Jan 01 1970 00:00:47  crashlogs
2   -ru     26138485 May 27 2019 09:51:33  RUN_110B020
3   -ru          687 May 27 2019 10:29:21  config1

94371840 bytes total (68231168 bytes free)

Switch#
```

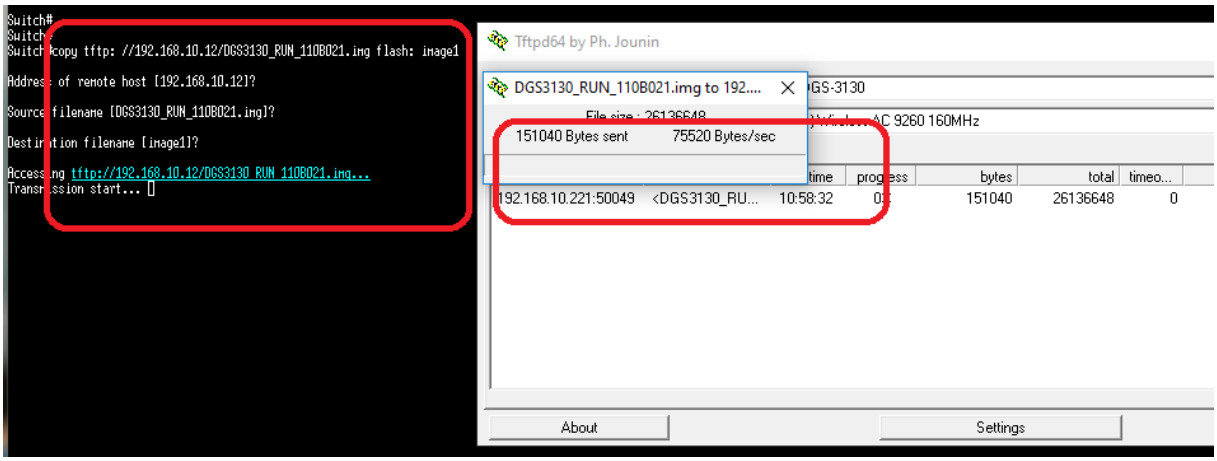
7. Start your TFTP-Server (f.e. TFTPD32)
    a. if you use a windows client, ensure to have created the required windows-firewall rules, or disable the local windows firewall for this
    b. check that you have the correct folder selected



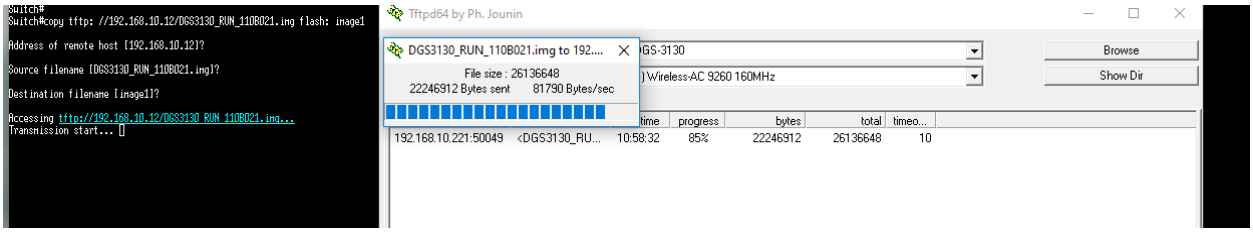
    c. if you selected the file correctly, check that your switch can reach the TFTP-Server by ping (f.e. ping 192.168.10.12)

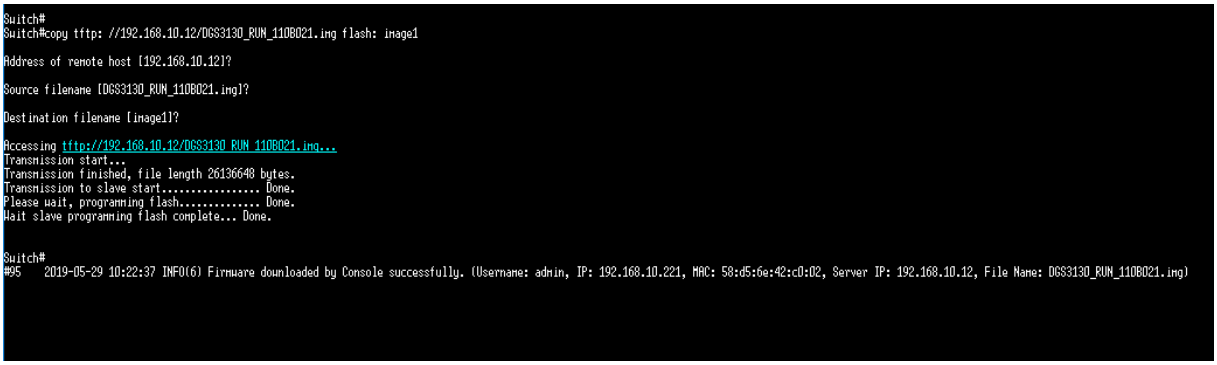


8. download the firmware files to the switch
    a. copy tftp: //192.168.10.12/DGS3130_RUN_110B021.img flash: image1

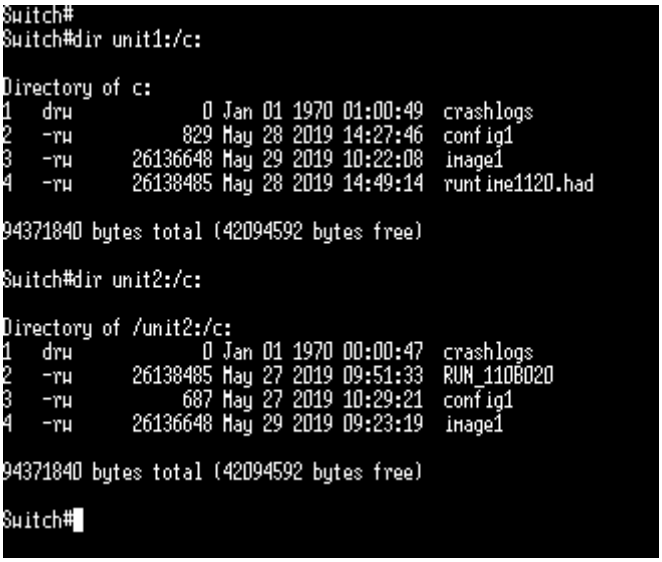


Wait until the file has been transferred completely and then distributes the new firmware to all switches within the stack





9. check the file system of the unit/units again to ensure that the new firmware file is existing on all units
    a. dir unit1:/c:
    b. dir unit2:/c:
    c. repeat this command until you reached the last unit (f.e. dir unit5:/c:)



10. Activate the new firmware as boot-up firmware
    a. change into “configure terminal” mode
    b. boot image unit1:/c:/image1
    c. boot image unit2:/c:/image1
    d. repeat this for all the units within your stack
    e. check boot file for all units again

```
Switch#
Switch#configure terminal

Switch(config)#
Switch(config)#
Switch(config)#
Switch(config)#boot image unit2:/c:/image1
Copy in progress.............................100%


Switch(config)#boot image unit1:/c:/image1
Copy in progress.............................100%


Switch(config)#show boot

Unit 1
 Boot image: /c:/image1
 Boot config: /c:/config1

Unit 2
 Boot image: /c:/image1
 Boot config: /c:/config1


Switch(config)#
```

11. Leave the configuration mode then save your configuration and reboot the device/stack
    a. leave configuration mode with “exit”
    b. save config with “copy running-config startup-config”
    c. reboot stack with “reboot”

```
Switch(config)#exit

Switch#copy running-config startup-config

Destination filename startup-config? [y/n]: y

Saving all configurations to NV-RAM..... Done.


Switch#
#101   2019-05-29 10:33:31 INFO(6) Configuration saved to flash by console (Username: admin)

Switch#
Switch#reboot

Are you sure you want to proceed with the system reboot? (y/n) y
```

12. after reboot check the new firmware of the switch/stack
    a. show version
    b. show stack

```
Switch#show version

Device MAC Address: 58:D5:6E:42:C0:D0
System MAC Address: 58:D5:6E:42:C0:D1

Unit ID  Module Name        Versions
-------  -----------------  --------------------
1        DGS-3130-30TS      H/W:A1
                            Bootloader:1.00.006
                            Runtime:1.10.B021
2        DGS-3130-30TS      H/W:A1
                            Bootloader:1.00.005
                            Runtime:1.10.B021

Switch#show stack

Stacking technology is Stacking Lite Ver 0.1
The number of box can be stacked is restricted by max box count and max stack cost.
Stacking Mode      : Enabled
Max Stack Cost     : 12
Max Box Count      : 9
Current Stack Cost  : 2
Current Box Count   : 2
My Box ID          : 1
Master Box ID      : 1
BK Master Box ID   : 2

Box  Module      Priority MAC             PROM/Runtime      H/W  Switch      Stack
ID   Name                                 Version           Ver. Status      Cost
---- ----------- -------- ---------------- ----------------- ---- ----------- -----
1   DGS-3130-30TS Unassign 58:D5:6E:42:C0:D0 1.00.006/1.10.B021 A1   OK          1
2   DGS-3130-30TS Unassign 58:D5:6E:42:BF:80 1.00.005/1.10.B021 A1   OK          1
3   --           -        --               --                -    Not Present -
4   --           -        --               --                -    Not Present -
5   --           -        --               --                -    Not Present -
6   --           -        --               --                -    Not Present -
7   --           -        --               --                -    Not Present -
8   --           -        --               --                -    Not Present -
9   --           -        --               --                -    Not Present -

Stack Bandwidth:
Box                 Link        Link        Link Partner
ID    Interface     Status      Speed (Gb/s) Box ID
----- ------------- ----------- ----------- -----------
1    0/29          Link Up     10          2
1    0/30          Link Up     10          2
2    0/29          Link Up     10          1
2    0/30          Link Up     10          1

Running-Config Synchronization to BK Master:
Status              : Synchronized
Time Since Last Sync. : 0 days 0 hrs 0 mins 4 secs
```