

# How to use DHCP Auto Configuration on DGS-1210-10P

## [Topology]



**Note:** DGS-1210 support DHCP Auto Configuration function at firmware R2, so please make sure your DUT upgrade to the latest firmware version

## [Scenario]

You can refer to KM [DK1000593] first. As described in KM [DK1000593]:

The DHCP automatic configuration function is used to automatically download and apply the previously saved configuration file from TFTP server while the device startup.

In the current scenario, we use the pre-configured configuration file for test, the followings are the detail we altered in the configuration file, the others are kept in default value:

## [Configuration]

### # At DHCP Server + TFTP Server #

#### 1) DHCP Server:

HaneWin DHCP Server create a profile for DGS-1210, setting as below, and go to **"Boot"** page, fill the TFTP server's IP address to the **"Next Server IP Address"**, and set the configuration file name in the **"File"**.

haneWIN DHCP Server

Leased IP addresses: 1 of 52

MAC address/Id	Profile	IP Address	Leased until

Configuration profiles

Profile	Type	IP Address
DGS-1210	Interface IP Address	10.90.90.92

**DGS-1210**

Basic Profile | DNS | NetBios | Time | Boot | Other

for: Interface IP Address 10.90.90.92

Dynamic IP Address Pool

From: 10.90.90.90  
Until: 10.90.90.91

Lease time (s): 100  infinite  
Subnet mask: 255.0.0.0  
Gateway Address:  
Backup Gateway 1:  
Backup Gateway 2:

OK Cancel Apply

**DGS-1210**

Basic Profile | DNS | NetBios | Time | Boot | Other

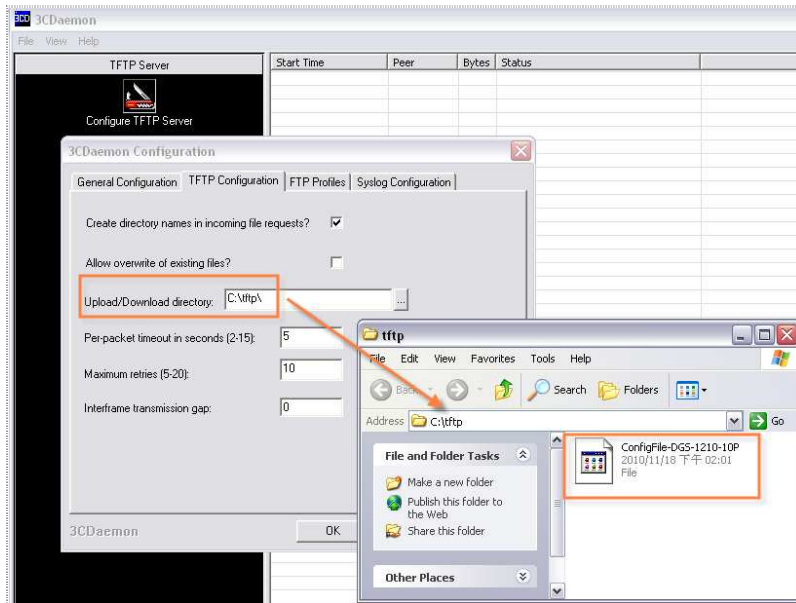
Boot Server

Next Server IP Address: 10.90.90.92  
Name:  
File: ConfigFile-DGS-1210-10P  
Boot File Size (in 512 byte blocks):  
 Always use option 66/67 for Name and File (not standard)  
 Alternate File if Vendor-Class-Id is:  
File:  
Boot File Size (in 512 byte blocks):  
Root Path:  
Substitutions in File and Root Path: %N = host name %A = IP address

OK Cancel Apply

## 2) TFTP Server:

Put the pre-configuration file "**ConfigFile-DGS-1210-10P**" in the location of TFTP Server Upload/Download Directory, the file name is the same as you fill-in at DHCP Server Boot page.



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## # At DGS-1210-10P #

### 1) Set the system IP into DHCP:

System -> System Settings



### 2) set the DHCP auto configuration to enabled

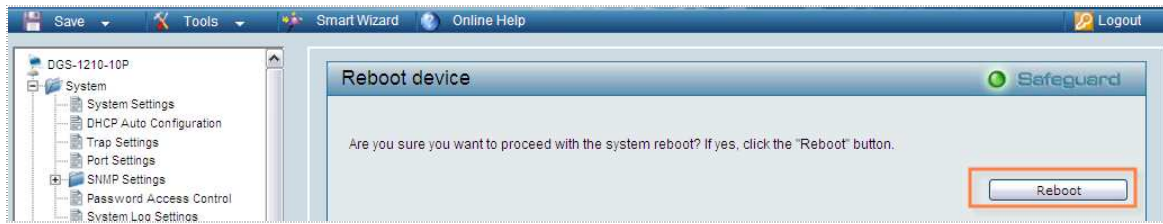
System -> DHCP Auto Configuration



### 3) Save the current configuration into switch:



#### 4) Reboot switch:



5) After boot up, you can see DGS-1210-10P get the IP from DHCP Server, and also can upload configuration **"ConfigFile-DGS-1210-10P"** from TFTP Server without problem.



DGS-1210-10P\_DHC  
P+TFTP.zip

See attached packet for the detail:

#### - DHCP Packet:

No.	Time	Source	Destination	Protocol	Info
1	2010-11-18	0.0.0.0	255.255.255.255	DHCP	DHCP Discover - Transaction ID 0x36061b31
2	2010-11-18	10.90.90.92	255.255.255.255	DHCP	DHCP Offer - Transaction ID 0x36061b31
4	2010-11-18	0.0.0.0	255.255.255.255	DHCP	DHCP Request - Transaction ID 0x36061b31
5	2010-11-18	10.90.90.92	255.255.255.255	DHCP	DHCP ACK - Transaction ID 0x36061b31

```

+ Frame 2 (590 bytes on wire, 590 bytes captured)
+ Ethernet II, Src: Dell_c4:52:0c (00:18:8b:c4:52:0c), Dst: Broadcast (ff:ff:ff:ff:ff:ff)
+ Internet Protocol, Src: 10.90.90.92 (10.90.90.92), Dst: 255.255.255.255 (255.255.255.255)
+ User Datagram Protocol, Src Port: bootps (67), Dst Port: bootpc (68)
+ Bootstrap Protocol
  Message type: Boot Reply (2)
  Hardware type: Ethernet
  Hardware address length: 6
  Hops: 0
  Transaction ID: 0x36061b31
  Seconds elapsed: 21
  + Bootp flags: 0x8000 (Broadcast)
  Client IP address: 0.0.0.0 (0.0.0.0)
  Your (client) IP address: 10.90.90.90 (10.90.90.90)
  Next server IP address: 10.90.90.92 (10.90.90.92)
  Relay agent IP address: 0.0.0.0 (0.0.0.0)
  Client MAC address: 1c:bd:b9:d5:df:02 (1c:bd:b9:d5:df:02)
  Client hardware address padding: 00000000000000000000
  Server host name not given
  Boot file name: ConfigFile-DGS-1210-10P
  Magic cookie: (OK)
  + Option: (t=53,l=1) DHCP Message Type = DHCP offer
  + Option: (t=54,l=4) DHCP Server Identifier = 10.90.90.92
  + Option: (t=51,l=4) IP Address Lease Time = 1 minute, 40 s
  + Option: (t=1,l=4) subnet Mask = 255.0.0.0
  End Option
  
```

MAC address/Id	Profile	IP Address	Leased until
✓ 011cbb9d5df02	DGS-1210	10.90.90.90	2010/11/18 16:17:50

#### - TFTP Packet:

No.	Time	Source	Destination	Protocol	Info
30	2010-11-18	10.90.90.90	10.90.90.92	TFTP	Read Request, File: ConfigFile-DGS-1210-10P\000, Transfer type: octet\000, blksize\000=1432\000, timeout\000=5\000, tsize\000=2303\000
31	2010-11-18	10.90.90.92	10.90.90.90	TFTP	Option Acknowledgement, blksize\000=1432\000, timeout\000=5\000, tsize\000=2303\000
32	2010-11-18	10.90.90.90	10.90.90.92	TFTP	Acknowledgement, Block: 0
33	2010-11-18	10.90.90.92	10.90.90.90	TFTP	Data Packet, Block: 1
34	2010-11-18	10.90.90.90	10.90.90.92	TFTP	Acknowledgement, Block: 1
35	2010-11-18	10.90.90.92	10.90.90.90	TFTP	Data Packet, Block: 2
36	2010-11-18	10.90.90.90	10.90.90.92	TFTP	Acknowledgement, Block: 2

```

+ Frame 30 (105 bytes on wire, 105 bytes captured)
+ Ethernet II, Src: 1c:bd:b9:d5:df:02 (1c:bd:b9:d5:df:02), Dst: Dell_c4:52:0c (00:18:8b:c4:52:0c)
+ Internet Protocol, Src: 10.90.90.90 (10.90.90.90), Dst: 10.90.90.92 (10.90.90.92)
+ User Datagram Protocol, Src Port: 49153 (49153), Dst Port: tftp (69)
+ Trivial File Transfer Protocol
  [Source File: ConfigFile-DGS-1210-10P]
  opcode: Read Request (1)
  Source File: ConfigFile-DGS-1210-10P
  Type: octet
  + Option: blksize\000 = 1432\000
  + Option: timeout\000 = 5\000
  + Option: tsize\000 = 0\000
  
```

Start Time	Peer	By...	Status
Nov 18, 2010 16:02:36	10.90.90.90	2303	Send of ConfigFile-DGS-1210-10P done. 2303 bytes in 0 secs.(2 KB/sec)