Firmware Version: V4.00.017
Prom Code Version: V4.00.001
Published: April 27, 2018

These release notes include important information about D-Link switch firmware revisions. Please verify that these release notes are correct for your switch:

- If you are installing a new switch, please check the hardware version on the device label; make sure that your switch meets the system requirement of this firmware version. Please refer to Revision History and System Requirement for detailed firmware and hardware matrix.
- If the switch is powered on, you can check the hardware version by typing "show switch" command or by checking the device information page on the web graphic user interface.
- If you plan to upgrade to the new firmware release, please refer to the Upgrade Instructions for the correct firmware upgrade procedure.

For more detailed information regarding our switch products, please refer to Related Documentation.

You can also download the switch firmware, D-View modules and technical documentation from http://tsd.dlink.com.tw.

Content:

Revision History and System Requirement:

Firmware Version	Date	Model	Hardware Version
Runtime: v4.00.017 PROM: v4.00.001	13-Apr-18	DGS-3000-10L	B1
		DGS-3000-20L	B1
		DGS-3000-28L	B1
		DGS-3000-28LP	B1
		DGS-3000-28X	B1
		DGS-3000-28XS	B1
		DGS-3000-28XMP	B1
		DGS-3000-52L	B1
		DGS-3000-52X	B1/B2
Runtime: v3.00.006 PROM: v3.00.001	05-Dec-16	DGS-3000-10L	B1
		DGS-3000-20L	B1
		DGS-3000-28L	B1
		DGS-3000-28LP	B1
		DGS-3000-28X	B1
		DGS-3000-28XS	B1
		DGS-3000-28XMP	B1
		DGS-3000-52L	B1
		DGS-3000-52X	B1

Upgrade Instructions

D-Link switches support firmware upgrade via TFTP server. You can download the firmware from D-Link web site http://tsd.dlink.com.tw, and copy the downloaded firmware to the TFTP server folder. Please make sure that the TFTP server is accessible from the switch via networks.

Note: FW 4.00.017 can be installed in HW version B1 and B2 switches but FW 3.00.006 can only be installed in HW version B1 switches.

Upgrade using CLI (serial port)

Connect a workstation to the switch console port and run any terminal program that can emulate a VT-100 terminal. The switch serial port default settings are as follows:

- Baud rate: **115200**
- Data bits: **8**
- Parity: **None**
- Stop bits: **1**

The switch will prompt the user to enter his/her username and password. It should be noted that upon the initial connection, there is no username and password by default.

To upgrade the switch firmware, execute the following commands:

Command	Function
download [firmware_fromTFTP {<ipaddr> src_file <path_filename 64>]	Download firmware file from the TFTP server to the switch.
config firmware image <path_filename64>boot_up	Change the boot up image file.
show switch	Display Switch information.
reboot	Reboot the switch.

Example:

1. **DGS-3000-28XMP:admin#download firmware_fromTFTP 10.54.71.1 src_file_ DGS-3000_Run_4_00_017.had**

```
Command: download firmware_fromTFTP 10.54.71.1 src_file
DGS-3000_Run_4_00_017.had

Connecting to server.................. Done.
Download firmware..................... Done.  Do not power off!
Please wait, programming flash......... Done.
```

2. **DGS-3000-28XMP:admin#config firmware image c:/ DGS3000_RUNTIME_V4.00.0017.had boot_up**

```
Command: config firmware image c:/ DGS-3000_Run_4_00_017.had boot_up

  Success.
```

3. **DGS-3000-28XMP:admin#show switch**

```
Command: display the Switch information
```

```
DGS-3000-28XMP:admin#show switch
Command: show switch

Device Type              : DGS-3000-28XMP Gigabit Ethernet Switch
MAC Address              : 00-01-02-03-04-00
IP Address               : 10.90.90.90 (Manual)
VLAN Name                : default
Subnet Mask              : 255.0.0.0
Default Gateway          : 0.0.0.0
Boot PROM Version        : Build 4.00.001
Firmware Version         : Build 4.00.017
Hardware Version         : B1
Serial Number            : T3941C1000029
System Name              :
System Location          :
System Uptime            : 0 days, 0 hours, 4 minutes, 27 seconds
System Contact           :
Spanning Tree            : Disabled
GVRP                     : Disabled
IGMP Snooping            : Disabled
MLD Snooping             : Disabled
VLAN Trunk               : Disabled
Telnet                   : Enabled (TCP 23)
Web                      : Enabled (TCP 80)
SNMP                     : Disabled
CTRL+C ESC q Quit SPACE n Next Page ENTER Next Entry a All
```

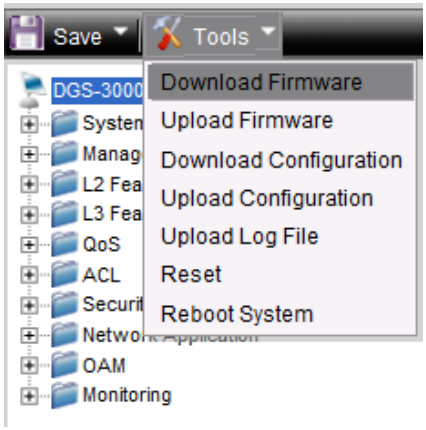
4. **DGS-3000-28XMP:admin#reboot**

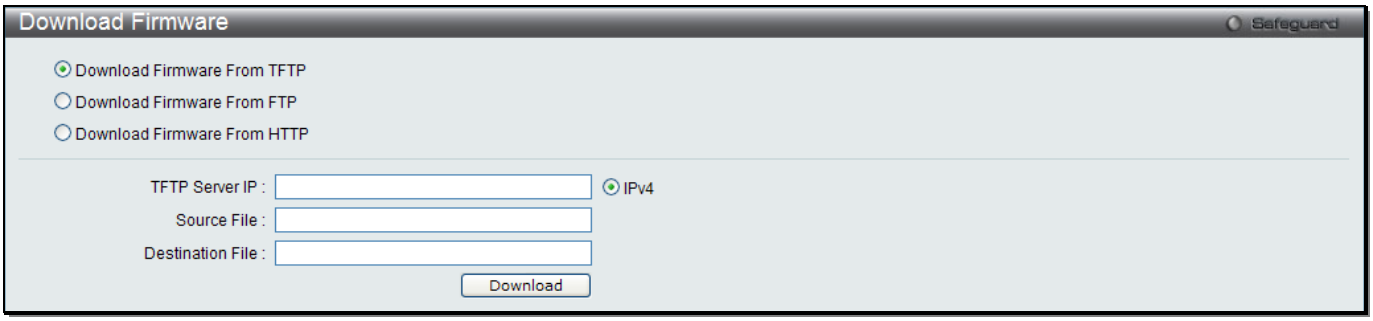
```
Command: reboot

Are you sure to proceed with the system reboot?(y/n)
Please wait, the switch is rebooting…
```

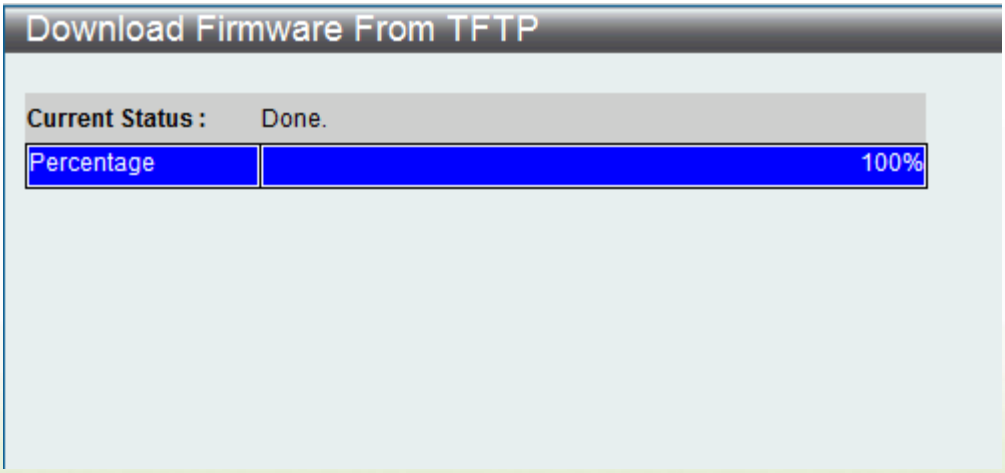
Upgrade using Web-UI:

1. Connect a workstation installed with java SE runtime environment to any switch port of the device.
2. Open the web browser from the workstation and enter the IP address of the switch. The switch's default IP address is 10.90.90.90.
3. Enter administrator's username and password when prompted. It should be noted that the username and password are blank by default.
4. To update switch's firmware or configuration file, select ***Tools > Download Firmware*** from the banner.



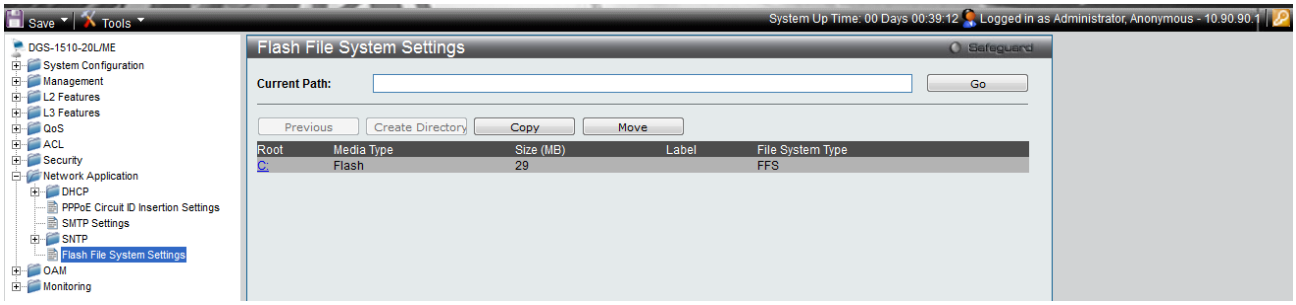


5. Enter the TFTP Server IP address.
6. Enter the location and name of the Source File on the TFTP server (ex. DGS-3000_Run_4_00_017.had)
7. Click "***Download***" button.
8. Wait until the "Current Status" reaches 100% and shows "Done".

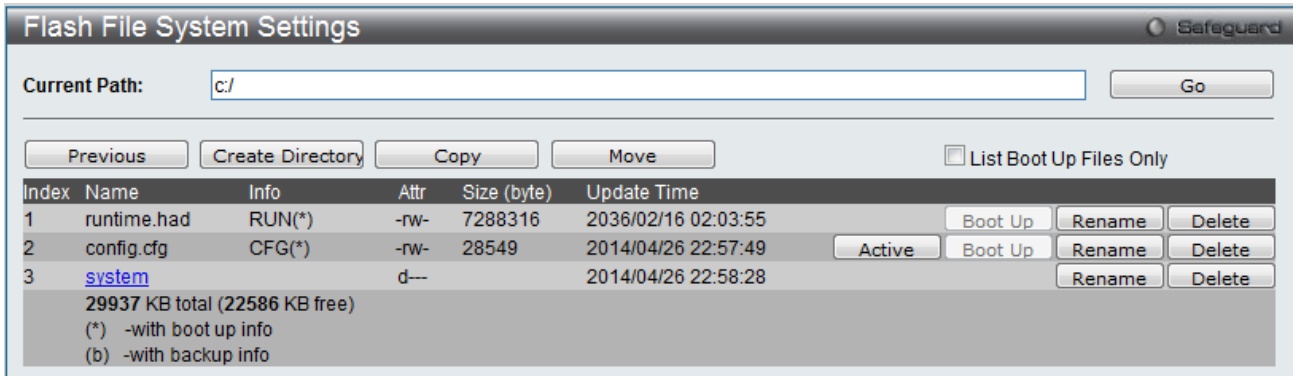


9. To select the boot up image used for next reboot, click "***Network Application" > "Flash File System Settings"*** in the function tree. Enter the Current Path string and click the Go

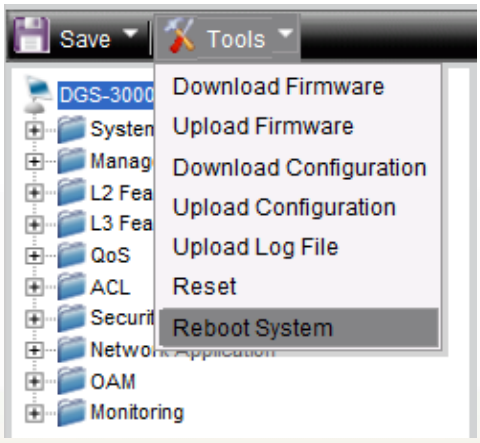
button or click the C: to enter "Flash File System Setting- Search for Drive" window.



10. Click corresponding "***Boot UP***" button to specify the firmware that will be used for next and subsequent boot up.



11. To reboot the switch, select ***Tools > Reboot System*** from the banner.



12. Select "***Yes"*** and click "***Reboot***" button to reboot the switch.

New Features:

Firmware Version	New Features
V4.00.017	1. Support Static Route 2. DHCP Relay Enhancement - Support DHCPv6 relay - Support DHCPv6 local relay - Support DHCP User-defined TLV for option18 - Support DHCP User-defined TLV for option37 3. DHCP auto-configuration Enhancement - Support DHCP option 6, 66, 67, and 150 4. Support Auto Image 5. Support Zero Touch Provisioning (ZTP) 6. ERPS Enhancement - Support Multiple ERPS Ring 7. Support IGMP/MLD Proxy Reporting 8. ISM VLAN Enhancement - Support MLDv1 snooping - Support MLDv2 snooping - MLD snooping function in ISM VLAN is independent from global MLD snooping 9. Trusted Host Enhancement - Support IPv6 host 10. QoS Scheduling Mechanism Enhancement - Support Deficit Round Robin (DRR) - Support Weighted Deficit Round Robin (WDRR) 11. IMPB Enhancement - Support IPv6 Inspection - Support DHCPv6 Snooping - Support IPv6 ND Snooping - Support DHCPv6 Prefix Delegation (PD) snooping - Support IPv6 ND Inspection - Support snooping database backup/reload 12. DHCP Sever Screening Enhancement - Support IPv6 Route Advertisement (RA) Guard 13. SIM Enhancement - Support SIM over IPv6 14. Compound Authentication Enhancement - Support "AND" mode: 802.1X (first) + IMPB - Support "AND" mode: IMPB (first) + WAC - Support "AND" mode: MAC (first) + IMPB - Support "AND" mode: MAC (first) + WAC

	15. Syslog Enhancement - Support syslog over IPv6 - Support syslog source-interface over IPv6 16. DULD Enhancement - Support DULD Auto Recovery - Support Configurable DULD Operation Timing 17. Support IPv6 for TACACS+ 18. Support PD Alive 19. Power saving -Power Saving By Link Status -Power Saving By LED Shut-Off -Power Saving By Port Shut-Off -Power Saving By System Hibernation 20. Support TLS1.2 21. Support NTP 22. Support UDP Helper 23. Support Flex Link
V3.00.006	First Release

Changes of MIB & D-View Module:

The new features of MIB file are also included in the corresponding D-View module. Please download the D-View module from http://tsd.dlink.com.tw. For detailed changes of MIB content, please refer to the modification history in each MIB file.

Firmware Version	MIB File	New Features
V4.00.017	L3mgmt.mib IPv6StaticRoute.mib	Static Route
	DHCPv6Relay.mib	DHCP Relay Enhancement - Support DHCPv6 relay - Support DHCPv6 local relay - Support DHCP User-defined TLV for option18 - Support DHCP User-defined TLV for option37
	erps.mib	ERPS Enhancement - Support Multiple ERPS Ring
	McastSnooping.mib	IGMP/MLD Proxy Reporting
	McastVLAN.mib	ISM VLAN Enhancement - Support MLDv1 snooping - Support MLDv2 snooping - MLD snooping function in ISM VLAN is independent from global MLD snooping
	Genmgmt.mib	Trusted Host Enhancement - Support IPv6 host
	QoS.mib	QoS Scheduling Mechanism Enhancement - Support Deficit Round Robin (DRR) - Support Weighted Deficit Round Robin (WDRR)
	IPMacBind.mib	IMPB Enhancement - Support IPv6 Inspection - Support DHCPv6 Snooping - Support IPv6 ND Snooping - Support DHCPv6 Prefix Delegation (PD) snooping - Support IPv6 ND Inspection - Support snooping database backup / reload
	Filter.mib	DHCP Sever Screening Enhancement - Support IPv6 Route Advertisement (RA) Guard
	SingleIP.mib	SIM Enhancement - Support SIM over IPv6
	Auth.mib	Compound Authentication Enhancement - Support "AND" mode: 802.1X (first) + IMPB

		- Support "AND" mode: IMPB (first) + WAC - Support "AND" mode: MAC (first) + IMPB - Support "AND" mode: MAC (first) + WAC
	AAC.mib	Support IPv6 for TACACS+
	FlexLink.mib	Flex Link
V3.00.006	First Release	

Changes of Command Line Interface:

The section below only shows command line changes that may bring backward compatibility issues with configuration settings for previous version of firmware.
Any new feature commands that do not have backward compatibility issues are not included in the below section.

Firmware Version	Changes
V4.00.017	config erps raps_vlan <vlanid> [state [enable | disable] | ring_mel <value 0-7> | ring_port [west <port> | east <port>] | rpl_port [west | east | none] | rpl_owner [enable | disable] | protected_vlan [add | delete] vlanid <vidlist> | revertive [enable | disable] | timer {holdoff_time <millisecond 0 - 10000> | guard_time <millisecond 10 - 2000> | wtr_time <min 5 - 12>}] Changes to config erps raps_vlan <vlanid 1-4094> [state [enable | disable] | ring_mel <value 0-7> | ring_port [west [<port> | virtual_channel] | east [<port> | virtual_channel]] | rpl_port [west | east | none] | rpl_owner [enable | disable] | protected_vlan [add |delete] vlanid <vidlist> | sub_ring raps_vlan <vlanid 1-4094> tc_propagation state [enable | disable] | [add | delete] sub_ring raps_vlan <vlanid 1-4094> | revertive [enable | disable] | timer { holdoff_time <millisecond 0 - 10000> | guard_time <millisecond 10 - 2000> | wtr_time <min 1-12>}(1)]
V4.00.017	config filter dhcp_server [add permit server_ip <ipaddr> ports [<portlist> | all] | delete permit server_ip <ipaddr> ports [<portlist> | all] | ports [<portlist> | all] state [enable | disable] | illegal_server_log_suppress_duration [1min | 5min | 30min] | trap_log [enable | disable]] Changes to config filter dhcp_server [add permit server_ip <ipaddr> {client_mac <macaddr>} ports [<portlist> | all] | delete permit server_ip <ipaddr> {client_mac <macaddr>} ports [<portlist> | all] | ports [<portlist> | all] {vlanid <vid_list>} state [enable | disable] | illegal_server_log_suppress_duration [1min | 5min | 30min] | trap [enable | disable] | log [enable | disable]]

V4.00.017	config authen server_group [tacacs | xtacacs | tacacs+ | radius | <string 15>] [add | delete] server_host [<ipaddr> | ipv6 <ipv6addr>] protocol [tacacs | xtacacs | tacacs+ | radius] Changes to config authen server_group [tacacs | xtacacs | tacacs+ | radius | <string 15>] [add | delete] server_host [<ipaddr> | <ipv6addr>] protocol [tacacs | xtacacs | tacacs+ | radius]
V4.00.017	create authen server_host [<ipaddr> | ipv6 <ipv6addr>] protocol [tacacs | xtacacs | tacacs+| radius] {port <int 1-65535> | [key [<key_string 254> | none]] | timeout <int 1-255> | retransmit <int 1-20>} Changes to create authen server_host [<ipaddr> | <ipv6addr>] protocol [tacacs | xtacacs | tacacs+ | radius] {port <int 1-65535> | key [<key_string 254> | none] | timeout <int 1-255> | retransmit <int 1-20>}
V4.00.017	config authen server_host [<ipaddr> | ipv6 <ipv6addr>] protocol [tacacs | xtacacs | tacacs+ | radius] {port <int 1-65535> | [key [<key_string 254> | none]]| timeout <int 1-255> | retransmit <int 1-20>} Changes to config authen server_host [<ipaddr> | <ipv6addr>] protocol [tacacs | xtacacs | tacacs+ | radius] {port <int 1-65535> | key [<key_string 254> | none] | timeout <int 1-255> | retransmit <int 1-20>}
V3.00.006	First Release

Problem Fixed:

Firmware Version	Problems Fixed
V4.00.017	1. MAC learning issue when some ports are disabled. **(DRU20170208000002)** 2. Some features cannot be configured in some WEB browsers and Java versions. **(DGC20170411000003)** 3. Some multicast flows stop from time to time for 3 ~ 5 seconds and groups are random. **(DRU20170313000002)** 4. When ports link up or down, ifLastChange OID doesn't work. **(DRU20170608000003)** 5. Switch should only allow to set the speed "Auto" or "1000" in fiber port and do not allow the user to set the speed "100" or "10" in fiber port. **(DRU2017070600000)** 6. When port mirror is configured by WEB-UI, the configuration is there but port mirror does not take effect. **(DRU20170831000004)** 7. DHCP server cannot find corresponding IP interface and then stop the process when the DHCP pool that is not in a System interface. **(DGC20170921000002)** 8. DUT will not reply to ping with packet TTL=1. **(DRU20170719000002)** 9. In some conditions, the IGMP Snooping will not work fine. **(DRU20170928000001)** 10. DUT will work abnormal when fiber port link with DAC cable and configure port to 1G mode. **(DEUR20170904000004)**
V3.00.006	First Release

* D-Link tracking number is enclosed in ()

Known Issues:

Firmware Version	Issues	Workaround
V3.00.006	None	

* D-Link tracking number is enclosed in ()

Related Documentation:

- DGS-3000 Series_B1_FW_R4.00_HW Installation Guide
- DGS-3000 Series_B1_FW_R4.00_Web UI Reference Guide
- DGS-3000 Series_B1_FW_R4.00_CLI Reference Guide