



**Firmware Version:** V2.50.017  
**Prom Code Version:** V1.00.016  
**Published:** 2013/3/25

These release notes include important information about D-Link DGS-3620 series 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](#):

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.

- for the correct firmware upgrade procedure.

For more detailed information regarding DGS-3600 series 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 .....	2
Upgrade Instructions: .....	2
Upgrade using CLI (serial port).....	2
Upgrading by using Web-UI.....	3
DLMS Instructions: .....	5
DLMS License Activation by CLI .....	5
DLMS License Activation by Web-UI .....	6
New Features .....	7
Changes of MIB & D-View Module .....	8
Changes of Command Line Interface.....	10
Problem Fixed .....	10
Known Issues .....	12
Related Documentation .....	13

## Revision History and System Requirement

Firmware Version	Date	Model	Hardware Version
Runtime: v1.00.035 Prom: v1.00.012	2011/3/25	DGS-3620-28TC	A1
		DGS-3620-28SC	A1
		DGS-3620-28PC	A1
		DGS-3620-52T	A1
		DGS-3620-52P	A1
Runtime: v1.00.038 Prom: v1.00.014	2011/5/13	DGS-3620-28TC	A1
		DGS-3620-28SC	A1
		DGS-3620-28PC	A1
		DGS-3620-52T	A1
		DGS-3620-52P	A1
Runtime: v1.00.040 Prom: v1.00.016	2011/10/7	DGS-3620-28TC	A1
		DGS-3620-28SC	A1
		DGS-3620-28PC	A1
		DGS-3620-52T	A1
		DGS-3620-52P	A1
Runtime: v2.00.016 Prom: v1.00.016	2012/1/5	DGS-3620-28TC	A1
		DGS-3620-28SC	A1
		DGS-3620-28PC	A1
		DGS-3620-52T	A1
		DGS-3620-52P	A1
Runtime: v2.50.017 Prom: v1.00.016	2013/3/25	DGS-3620-28TC	A1
		DGS-3620-28SC	A1
		DGS-3620-28PC	A1
		DGS-3620-52T	A1
		DGS-3620-52P	A1

## Upgrade Instructions:

**Note:**  
**EI & SI features are all included in the firmware.**  
**It is not necessary to upgrade PROM code.**

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.

### 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_from_TFTP [<ipaddr>   <ipv6addr>] src_file <path_filename 64> {[unit <unit_id>   all]} {dest_file <pathname 64>}]	Download firmware file from the TFTP server to the switch.
config firmware image {unit <unit_id>} <path_filename 64> boot_up	Change the boot up image file.
show boot_file	Display the information of current boot image and configuration.
reboot	Reboot the switch.

### **Example:**

```
DGS-3620-28TC:15# download firmware_from_TFTP 10.53.13.201 src_file c:\DGS-3620_Series_FW_1.00.035.had
dest_file c:\DGS-3620_Series_FW_1.00.035.had
```

```
Command: download firmware_from_TFTP 10.53.13.201 src_file c:\DGS-3620_Series_FW_1.00.035.had dest_file
c:\DGS-3620_Series_FW_1.00.035.had
```

```
Connecting to server.....Done.
Download firmware.....Done. Do not power off!
Upload file to FLASH.....Done.
```

```
DGS-3620-28TC:15# config firmware c:\DGS-3620_Series_FW_1.00.035.had boot_up
```

```
Command: config firmware c:\DGS-3620_Series_FW_1.00.035.had boot_up
```

Success.

```
DGS-3620-28TC:15# show boot_file
```

```
Command: show boot_file
```

```
-----
Unit ID : 1
Boot up firmware image : C:\DGS-3620_Series_FW_1.00.035.had
Boot up configuration file: C:\STARTUP.CFG
-----
```

```
DGS-3620-28TC:15# reboot
```

```
Command: reboot
```

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

```
Please wait, the switch is rebooting...
```

### **Upgrading by using Web-UI**

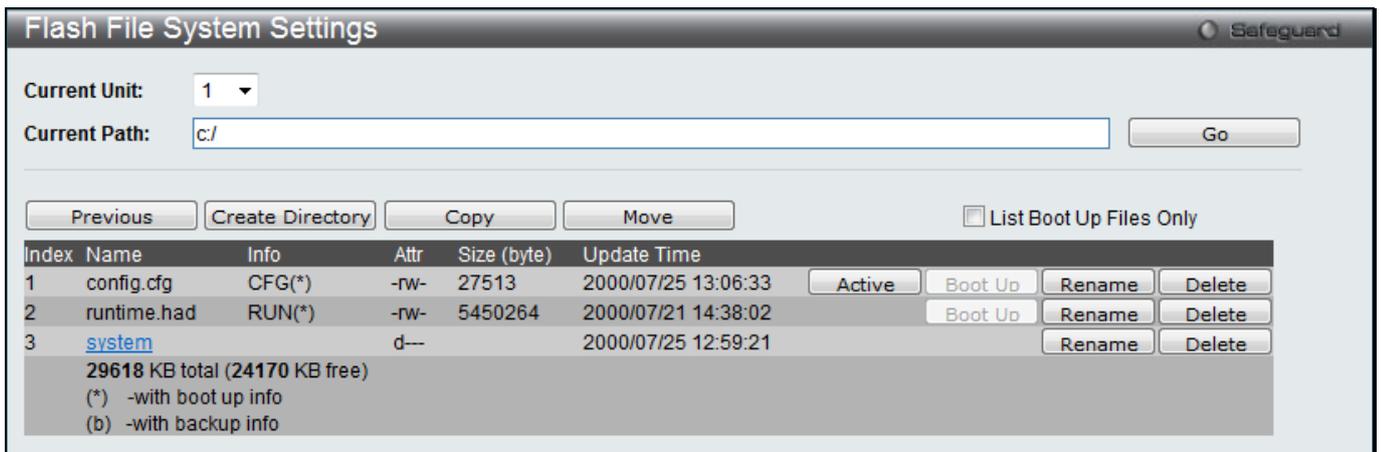
1. Connect a workstation installed with java SE runtime environment to any switch port of the device.
2. Open the web browser from the workstation and enter the IP address of the switch. The switch's default IP address is 10.90.90.90.
3. Enter administrator's username and password when prompted. It should 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. Use the drop-down menu to select a unit for receiving the firmware. Select **All** for all units.
6. Enter the TFTP Server IP address.
7. Enter the name of the firmware file located on the TFTP server.
8. Enter the destination path and the desired file name.
9. Tick the check box to set it as a boot up file.
10. Click "**Download**" button.
11. Wait until the "Current Status" displays "Done" and the "Percentage" shows "100%".

11. To select the boot up image used for next reboot, click **Network Application > Flash File System Settings** in the function tree and then click the **C:** drive name. When you see the files list, click corresponding "**Boot Up**" button to specify the firmware that will be used for next and subsequent boot up.

Root	Media Type	Size (MB)	Label	File System Type
C:	Flash	123		FFS



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

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

### DLMS Instructions:

Some D-Link switches support DLMS (D-Link License Management System) feature. With DLMS, you can upgrade your switches to more enhanced edition to get more sophisticated features.

#### DLMS License Activation by CLI

Command	Function
install dlms activation_code <string 25> {unit <unit_id 1-6>}	This command is used to install an activation code to activate or unlock function on the appliance.
show dlms license {unit <unit_id 1-6>}	This command is used to display license information.

#### Example:

1. DGS-3620-28TC:admin#install dlms activation\_code DF244A4E4BC640C6394510206

Command: install dlms activation\_code DF244A4E4BC640C6394510206

Success.

Please reboot the device to active the license.

DGS-3620-28TC:admin#

2. DGS-3620-28TC:admin#reboot

Command: reboot

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

Please wait, the switch is rebooting...

Boot Procedure

V1.00.016

Power On Self Test ..... 100 %

MAC Address : 00-40-05-31-20-00

H/W Version : A1

```

Please Wait, Loading V2.50.017 Runtime Image ..... 100 %
UART init ..... 100 %
Starting runtime image
Device Discovery ..... 100 %
Configuration init ..... 100 %
    
```

**3. DGS-3620-28TC:admin#show dlms license**

Command: show dlms license

Device Default License : SI

License Model	Activation Code	Time Remaining
DGS-3620-28TC-SE-LIC	DF244A4E4BC640C6394510206	No Limited

\* expired

**DLMS License Activation by 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 **Tool->License Management** from the banner.

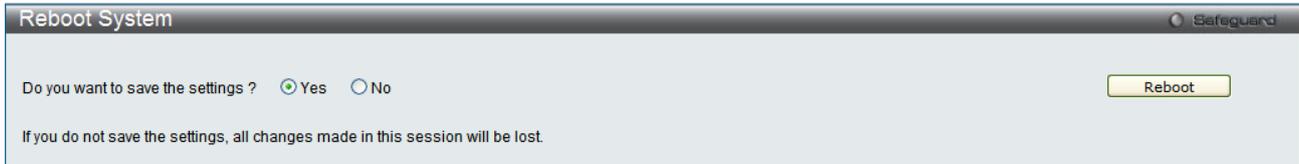


5. Enter the Activation Code and select unit of stack then click **Install** to activate the assigned switch.



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

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



## New Features

Firmware Version	New Features
V1.00.035	First release, please refer to datasheet and manual for detail function supported
V1.00.038	<ol style="list-style-type: none"> <li>1. Add new flash driver support – “JS28F512M29EWL”.</li> <li>2. Modify PoE per port default power from 7000mw to 15400mw.</li> </ol>
V1.00.040	None
v2.00.016	<ol style="list-style-type: none"> <li>1. Support D-Link License Management System(DLMS) to upgrade Standard Image (SI) to Enhance Image (EI)</li> <li>2. Support external Alarm port functions</li> <li>3. Supports 64 characters file name for file system</li> <li>4. Enlarge PoE maximum power limit to 760W for DGS-3620-28PC</li> <li>5. Support 100-FX/BX SFP Transceivers: DEM-210/211/220T/220R</li> <li>6. Modify DDM shutdown default state from alarm to none</li> <li>7. DSCP to CoS mapping</li> <li>8. Support SNTPv6</li> <li>9. Support 128 bits prefix IPv6 routing</li> <li>10. Support DEM-CB700S 10GbE SFP+ to SFP+ 7meter Direct Attach Cable</li> </ol>
V2.50.017	<ol style="list-style-type: none"> <li>1. Support null route be able to redistribute to dynamic routing protocol</li> <li>2. The priority of route preference is configurable in policy based route or route table</li> <li>3. Be able to disable a LACP trunk member port</li> <li>4. Enlarge Super VLAN's Sub VLAN number to 128.</li> <li>5. Support to display media type of SFP transceiver</li> <li>6. Support UDP Helper</li> <li>7. Support to send SNMP traps when LACP member port is up or down</li> <li>8. Support Weighted Random Early Detection</li> <li>9. Storm control supports to configure the threshold by packet types in the same port</li> <li>10. Support IMPB v3.95</li> <li>11. Enlarge the BGP neighbor to 20 neighbors and also support 4 byte AS number</li> <li>12. Support DHCPv6 Prefix Delegation</li> <li>13. Support DoS Attack Prevention</li> <li>14. Support Framed-IP-Address Radius attribute</li> <li>15. Support per port DHCP relay</li> <li>16. The minimum granularity of bandwidth control changes to 8Kbps</li> <li>17. Support unicast NLB</li> </ol>

18. Support configurable DHCP server option
19. Support OSPF distribute list witch can limit to specific IP range
20. OSPF supports point-to-point network type
21. Modify OSPF design that one OSPF "link state update" packet be able to carry multiple "link state advertisement" entries
22. The DDM function is able to show TX/RX power
23. Be able to encrypt SNMP community name.
24. PIM supports passive mode
25. Support advanced power saving (LED Shut-off/ Port Shut-off/ System Hibernation)
26. Support DHCPv6 relay option 37
27. Support Secure FTP server for IPv4
28. Support DHCPv6 Server Screening
29. Be able to separate RADIUS accounting server from authentication server
30. Support DNSv6
31. When trigger events of alarm port occur, the system is able to send alarm to external warning devices
32. IGMP authentication supports auth & accounting, auth only or accounting only modes
33. Be able to show the packet counter of STP drop/HOL drop/CoS drop
34. Support sending SNMP traps via specific port inside of all ports
35. Be able to configure SNMP UDP port number
36. DHCP Auto-configuration supports DHCP option 6, 66, 67, 150
37. Support displaying CPU port statistics
38. Support LBD v4.05
39. Support displaying more specific traffic control information for broadcast/multicast/unicast traffic types
40. Route redistribution feature supports RIPng/OSPFv3 protocols
41. TACACS+ support command accounting
42. Debug command will also display stacking port's packet statistics
43. Support Unicast Reverse Path Forwarding
44. Support selective QinQ
45. The RIP update timer downgrade to 1 sec
46. Move Cable Diagnostics function from EI to SI
47. LACP supports configuring timeout parameter
48. Y.1731 supports Loss Measurement / Delay Measurement parameter
49. Storm control feature supports sending trap/log when traffic exceeds the defined drop threshold
50. Support 802.3az Energy-Efficient Ethernet (Hardware version B1 and later)

## 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 on <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
V1.00.035	First release, please refer to datasheet for detail MIB supported	
V1.00.038	None	
V1.00.040	None	
v2.00.015	Dlms.mib	Add DLMS

	Time.mib	Add SNTPv6
	QoS.mib	Add DSCP to CoS mapping
	Equipment.mib	Support external alarm port
	PoE.mib	Enlarge PoE maximum power limit to 760W for DGS-3620-28PC
	rfc5643.mib	Update OSPFv3-MIB
V2.50.017	L3mgmtDgs3620-xx.mib	<ol style="list-style-type: none"> <li>1. Support redistributing null route to dynamic routing protocol</li> <li>2. Support DHCPv6 Prefix Delegation</li> <li>3. Support OSPF distribution list new parameter</li> <li>4. OSPF supports point-to-point network type</li> <li>5. Route redistribution supports RIPng/OSPFv3</li> <li>6. "RIP update timer" downgrades to 1 sec</li> </ol>
	policyRoute.mib	The priority of route preference is configurable in policy based route or route table
	L2mgmtDgs3620-xx.mib	<ol style="list-style-type: none"> <li>1. Be able to disable a LACP trunk member port</li> <li>2. Support displaying media type of SFP transceiver</li> <li>3. IGMP authentication supports auth_accounting, auth only or accounting only modes</li> <li>4. Support displaying the packet counter of STP drop/HOL drop/CoS drop packet</li> </ol>
	SuperVLAN.mib	Enlarge Super VLAN's Sub VLAN number to 128.
	UDPHelper.mib	Support UDP helper
	rfc2863.mib	Support to send SNMP traps when LACP member port is up or down
	wred.mib	Support Weighted Random Early Detection
	PktStromCtrl.mib	<ol style="list-style-type: none"> <li>1. Storm control supports to configure the threshold by packet types in the same port</li> <li>2. Storm control feature supports sending trap/log when traffic exceeds the defined drop threshold</li> </ol>
	IPMacBind.mib	Support IMPB v3.95
	Rfc4273.mib	Enlarge the BGP neighbor to 20 neighbors and also support 4 byte AS number
	Dosprev.mib	Support DoS Attack Prevention
	DHCPRelay.mib	Support DHCP relay per port
	QoS.mib	The minimum granularity of bandwidth control changes to 8Kbps
	NLB.mib	Support unicast NLB
	DHCPServer.mib	Support configurable DHCP server option
	DDM.mib	Be able to display TX/RX power
	Genmgmt.mib	<ol style="list-style-type: none"> <li>1. Be able to encrypt SNMP community name</li> <li>2. PIM supports passive mode</li> <li>3. Support total learned number of ARP entries in system</li> <li>4. Support sending SNMP traps via specific port inside of all ports</li> <li>5. Be able to configure SNMP UDP port number</li> </ol>
	Equipment.mib	<ol style="list-style-type: none"> <li>1. Support advanced power saving (LED Shut-off/ Port Shut-off/ System Hibernation)</li> <li>2. Support 802.3az Energy-Efficient Ethernet (Hardware version B1 and later)</li> </ol>

DHCPv6Relay.mib	Support DHCPv6 relay option 37
SFTPServer.mib	Support Secure FTP server for IPv4
Filter.mib	Support DHCPv6 Server Screening
AAC.mib	1. Be able to separate RADIUS accounting server from authentication server 2. TACACS+ support command accounting
DNSResolver.mib	DNSv6
LBD.mib	LBD v4.05
urpf.mib	Unicast Reverse Path Forwarding
QinQ.mib	Selective QinQ
ie8023ad.mib	LACP support configure timeout
CFMExtension.mib	Y.1731 support Loss Measurement / Delay Measurement

## 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
V1.00.035	First release
V1.00.038	None
V1.00.040	None
v2.00.016	None
V2.50.017	None

## Problem Fixed

Firmware Version	Problems
V1.00.035	First release
V1.00.038	None
V1.00.040	1. Modify CPU GPIO pin setting on DGS-3600-28SC/28TC/52T 2. Modify RTC trickle register to reduce charging time
v2.00.016	1. LAG group will be failed due to mis-matching of port configuration if power cycle in unit 2 ( <a href="#">DI20110802000001</a> ) 2. The CPU loading of master and slave units will become 100% and make two master roles in the same stacking system. ( <a href="#">DI20110616000011</a> ) 3. A loop condition was happened after using ERPS. After rebooted, DGS-3620 forwarded packets from RPL port whose state was blocking. ( <a href="#">DI20110727000004</a> ) 4. Multicast packets cannot be forward after slave unit is rebooted ( <a href="#">DI20110729000007</a> ) 5. DULD settings were lost after stacking Member unit reboot ( <a href="#">DI20110726000012</a> ) 6. Null characters was occurred when getting the result of MIB

	<p>(swERPSMgmtRAPSPProtectionVlan) (DI20110726000004)</p> <p>7. Console freeze when typing "show wac auth_state po*" (DI20110726000004)</p> <p>8. Performance issue in WAC for IPv6 (DI20110701000011)</p>
V2.50.017	<p>1. After resetting configuration and executing "show config modified", the system still displays some non-modified configuration (DUSA20110616000002)</p> <p>2. Telnet session will be terminated when DGS-3620 receives unknown destination IP packets. (DI20110711000004)</p> <p>3. When the packet exits service provider's network, the switch didn't remove the inner tag in outgoing UNI port (DRU20110919000004)</p> <p>4. When enabling WAC with invalid virtual IP address, switch does not show warning message. (DI20111114000004)</p> <p>5. When creating 4K VLANs, DGS-3620 will stop sending LACP/BPDU packets (DI20110616000010)</p> <p>6. When over 2K JWAC authenticated clients in system and then clear all FDB entries, the switch will stop sending LACP/BPDU packets for a while (DI20110621000010)</p> <p>7. When over 4K WAC authenticated clients in system and then clear all FDB entries, it will stop sending LACP/BPDU packets for a while (DI20110706000012)</p> <p>8. In stacking mode, DGS-3620 will take over 50sec to delete FDB entries (DI20110621000016)</p> <p>9. BGP session was terminated when DGS-3620 receives IPv6 multicast packets in 500pps. (DI20111121000006)</p> <p>10. DGS-3620 will duplicate DHCP OFFER packet when receiving DHCP snooping packet with VLAN tag. (DI20111208000007)</p> <p>11. The LACPDU structure doesn't follow the standard IEEE 802.1AX-2008. (DRU20111223000001)</p> <p>12. When enabling DHCPv6 snooping and multicast filter, a DHCPv6 solicit packet will be forwarded twice. (DI20120117000007)</p> <p>13. DGS-3620 didn't add (S, G) entry into PIM multicast route table for IPv6 when the interface was connected to server directly instead of DR. (DI20120106000002)</p> <p>14. DHCP inform packet is returned to ingress port when flooding a DHCP packet in the VLAN (DRU20120209000002)</p> <p>15. The jumbo frame can't be routed by DGS-3620 (DEUR20120119000003)</p> <p>16. DGS-3620 can't reply SYN+ACK in WAC IPv6 clients after continuously process authentication and de-authentication (DI20111203000001)</p> <p>17. When configuring DGS-3620's WAC feature to redirect IPv6 HTTPS traffic to specific web page, switch will redirect the traffic to incorrect authentication page. (DI20111208000010)</p> <p>18. When IPv6 is enabled and be saved, it will be reset to disable again after rebooting the switch. (DRU20120402000005)</p> <p>19. The status of remote MEP port displays "up" incorrectly even if the link is down. (DEUR20120408000001)</p> <p>20. DGS-3620 will enter the exception mode and then auto-reboot when getting too big SNMP PDU packet (DRU20120511000004, DRU20120409000001)</p> <p>21. When DGS-3620 implements inter-VLAN routing, the ingress packets without setting 802.1p priority will be modified to priority 5 in egress. (DRU20120516000002)</p> <p>22. The loopback interface was not written into hardware table when disabling system interface (DRU20120530000003)</p> <p>23. After receiving the last authenticated entry via TACACS+, DGS-3620</p>

- can't time out telnet session. ([DEUR20120611000001](#), [DRU20120710000005](#))
- 24. When routing DHCP packet to next hop and the ARP entry of next hop is not in ARP table, DGS-3620 can't send ARP request actively and forward DHCP packets ([DRU20120628000002](#))
- 25. After installing the activation code, it still displays Standard Image instead of Enhanced Image when executing "show switch" command([DGC20120712000001](#))
- 26. When DGS-3620 is RP role in PIM-SM, it can't keep register message ([DRU20120712000006](#))
- 27. When leaving one IGMP group and re-joining this group again, it join action will be delayed around 1 minute ([DRU20120626000002](#))
- 28. When executing download/upload file script, it will cause the system memory pool exhausted. ([DRU20120402000004](#))
- 29. DGS-3620 detects the loop incorrectly in LBD VLAN based mode when connects ports in different VLANs. ([DI20120718000002](#))
- 30. DGS-3620 receives multiple multicast groups, the switch will send incorrect IGMP report packet to server, which will work fine when receiving signal multicast group([DUSA20120719000002](#))
- 31. If the switch's system interfaces and management interface connect to TFTP server, download firmware will be failed. ([DI20120914000006](#))
- 32. DGS-3620 will hang up when enabling BGP ([DRU20120924000004](#))
- 33. When CPU utilization was high, OAM frame will be stopped ([DI20110728000011](#))
- 34. IPv6 multicast stream was not transmitted by PIM6 after the reboot ([DI20110831000006](#))
- 35. In stacking, DGS-3620 will still forward CFM frames from ERPS blocking port after rebooting the backup master unit. ([DI20110908000011](#))
- 36. After disconnecting a cable from a master unit's LACP port DGS-3620 cannot forward packet to CPU ([DI20110909000001](#))
- 37. After master unit of a stack was powered off, the slave unit's RPL port is still in block state instead of changing to forward state ([DI20110909000002](#))
- 38. When DGS-3620 receives IPv6 multicast packet(LLNMR/SSDP) by 1000pps, DGS-3620 will drop BGP keep-alive packets and terminate BGP session ([DI20110905000009](#))
- 39. User cannot change the port speed to 100 full via Web-UI ([DRU20110915000007](#))
- 40. DGS-3620 will auto reboot when executing SSH attack tool(rubyinstaller) ([DI20121012000004](#))
- 41 DGS-3620 does not forward DHCP packets if interface is disabled and DHCP relay is enabled ([DRU20121025000011](#))
- 42 In stacking, when Voice VLAN is enabled first and then assigns VLAN member ports form slave unit, DGS-3620 will not learn MAC addresses from those VLAN member ports ([DEUR20121220000001](#))

\* D-Link tracking number is enclosed in ()

## Known Issues

Firmware Version	Issues	Workaround
V1.00.035	None	
V1.00.038	None	

V1.00.040	None	
v2.00.016	None	
V2.50.017	None	

## **Related Documentation**

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- DGS-3620 Series Web UI Reference Guide Release 2.5
- DGS-3620 Series CLI Reference Guide Release 2.5
- DGS-3620\_Series\_HW Installation Guide\_v2.5