



**Firmware Version:** v 2.00.010  
**Prom Code Version:** v 2.00.003  
**Published:** Jun. 20, 2011

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>.

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## Revision History and System Requirement:

Firmware Version	Date	Model	Hardware Version
Runtime: v2.00.010 PROM: v2.00.003	20-Jun-11	DGS-3120-24TC	A1
		DGS-3120-24SC	A1
		DGS-3120-24SC-DC	A1
		DGS-3120-48TC	A1
		DGS-3120-24PC	A1
		DGS-3120-48PC	A1
Runtime: v1.02.013 PROM: v1.00.010	20-Jan-11	DGS-3120-24TC	A1
		DGS-3120-24SC	A1
		DGS-3120-24SC-DC	A1
		DGS-3120-48TC	A1
		DGS-3120-24PC	A1
		DGS-3120-48PC	A1
Runtime: v1.01.027 PROM: v1.00.009	31-Dec-10	DGS-3120-24TC	A1
		DGS-3120-24SC	A1
		DGS-3120-24SC-DC	A1
		DGS-3120-48TC	A1
Runtime: v1.00.028 PROM: v1.00.007	29-Sep-10	DGS-3120-24TC	A1

## Upgrade Instructions:

**Note: EI & SI features are all included in the firmware. While upgrading, system will automatically distinguish it and enable the associated features only.**

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_fromTFTP [<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.
dir {{unit <unit_id>} <drive_id>} {<pathname 64>}	Display the information of current boot image and configuration.

reboot

Reboot the switch.

Example:

- DGS-3120-24TC:15#download firmware\_fromTFTP 172.17.5.48 src\_file Run100028.had dest\_file Run100028.had**  
Command: download firmware\_fromTFTP 172.17.5.48 src\_file Run100028.had dest\_file Run100028.had  
  
Connecting to server..... Done.  
Download firmware..... Done. Do not power off!  
Please wait, programming flash..... Done.
- DGS-3120-24TC:15#config firmware image Run100028.had boot\_up**  
Command: config firmware image Run100028.had boot\_up  
  
Success.
- DGS-3120-24TC:15#dir**  
Command: dir  
  
Directory of /c:  

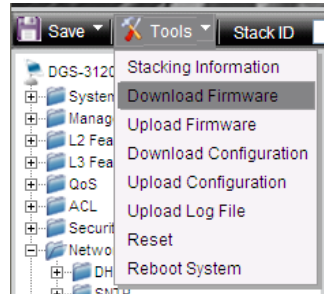
Idx	Info	Attr	Size	Update Time	Name
1	RUN(*)	-rw-	4881912	2000/03/17 05:27:04	Run100028.had
2	RUN(b)	-rw-	4880456	2000/02/02 04:39:04	Run100026.had
3	CFG(*)	-rw-	23851	2000/02/04 04:30:10	config.cfg
4		d---	0	2000/03/17 05:14:23	system

  
29618 KB total (19963 KB free)  
(\* ) -with boot up info                    (b) -with backup info
- DGS-3120-24TC:15#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 V1.00.007  
-----  
  
Power On Self Test ..... 100 %  
  
MAC Address : 00-40-05-31-20-00  
H/W Version : A1  
  
Please Wait, Loading V1.00.028 Runtime Image ..... 100 %  
UART init ..... 100 %  
Starting runtime image  
Device Discovery ..... 100 %  
Configuration init ..... 100 %

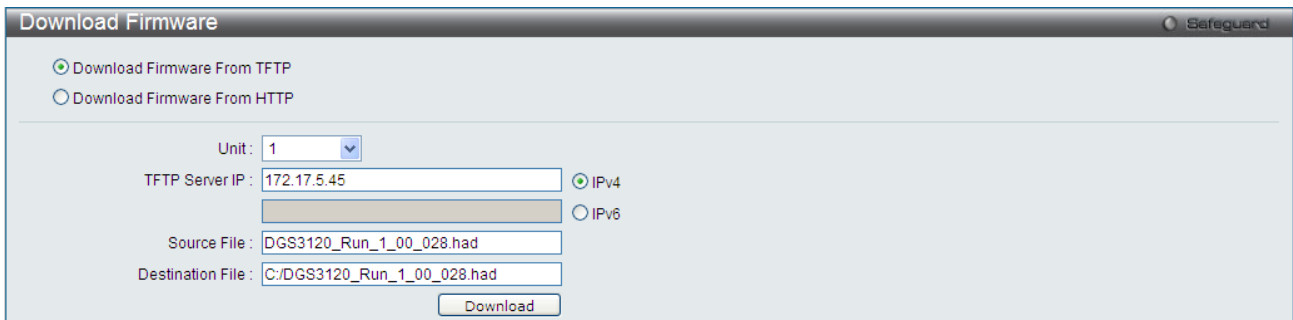
### **Upgrade using Web-UI**

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

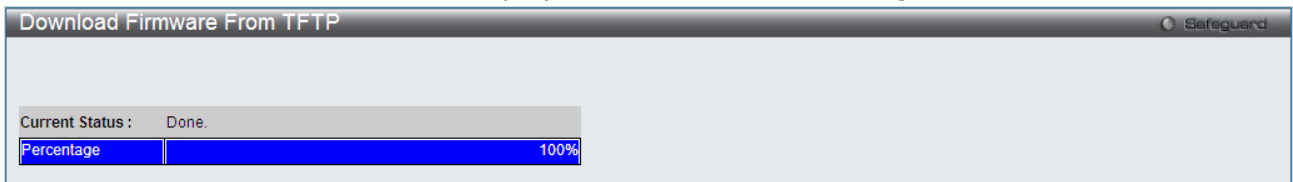
- switch's default IP address is **10.90.90.90**.
- Enter administrator's username and password when prompted. It should be noted that the username and password are blank by default.
- To update switch's firmware or configuration file, select **Tools > Download Firmware** from the banner.



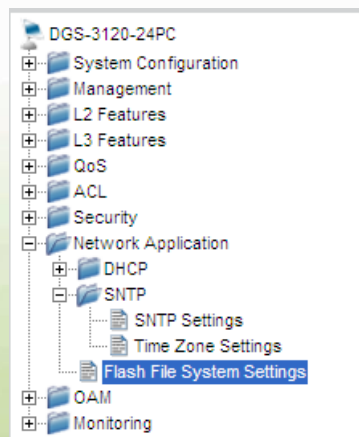
- Enter the TFTP Server IP address.
- Enter the name of the firmware file located on the TFTP server.
- Enter the destination path and the desired file name.
- Click **Download** button.



- Wait until the Current Status displays **Done** and the Percentage shows **100%**.



- 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.



Current Unit:

Current Path:

Root	Media Type	Size (MB)	Label	File System Type
C:	Flash	28		FFS

### Flash File System Settings

Current Unit:

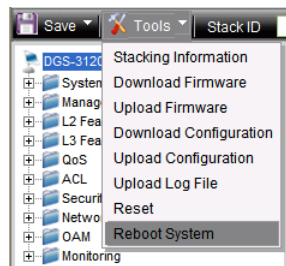
Current Path:

List Boot Up Files Only

Index	Name	Info	Attr	Size (byte)	Update Time		Boot Up	Rename	Delete
1	DGS3120_Run_1_0...	RUN(b)	-rw-	4881912	2000/02/16 01:21:23		<input type="button" value="Boot Up"/>	<input type="button" value="Rename"/>	<input type="button" value="Delete"/>
2	config.cfg	CFG(*)	-rw-	27334	2000/02/16 00:53:17	<input type="button" value="Active"/>	<input type="button" value="Boot Up"/>	<input type="button" value="Rename"/>	<input type="button" value="Delete"/>
3	Runtime.had	RUN	-rw-	4881912	2000/02/15 21:23:08		<input type="button" value="Boot Up"/>	<input type="button" value="Rename"/>	<input type="button" value="Delete"/>
4	DGS3120_Run_1_0...	RUN(*)	-rw-	5455824	2000/02/15 23:36:25		<input type="button" value="Boot Up"/>	<input type="button" value="Rename"/>	<input type="button" value="Delete"/>
5	system		d---		2000/02/16 00:28:33			<input type="button" value="Rename"/>	<input type="button" value="Delete"/>

29618 KB total (14629 KB free)  
 (\*) -with boot up info  
 (b) -with backup info

- To reboot the switch, select **Tools > Reboot System** from the banner.
- Select **Yes** and click **Reboot** button to reboot the switch.



### Reboot System

Do you want to save the settings ?  Yes  No

If you do not save the settings, all changes made in this session will be lost.

## New Features:

Firmware Version	New Features
v2.00.010	<ol style="list-style-type: none"> <li>L3 control packet filtering</li> <li>802.1ax</li> <li>LLDP-MED</li> <li>Customized WAC page</li> <li>L2 protocol Tunneling (STP BPDU, GVRP PDU, Cisco Protocols PDU)</li> <li>Support configuring drop threshold of L2 Protocol Tunneling</li> <li>IGMP Authentication</li> <li>SMTP</li> <li>D-Link Voice VLAN 2.1</li> <li>Time-based POE</li> <li>Enable / Disable DHCP per VLAN</li> <li>Extended password length to 32 characters</li> <li>IMPB V3.91 (EI)</li> <li>WAC/JWAC forIPv6 (EI)</li> <li>Circuit-Id insertion for PPPoE (EI)</li> <li>802.3ah (DULD, D-Link Unidirectional Link Detection) (EI)</li> <li>Optical Transceiver DDM (Digital Diagnostic Monitoring) (EI)</li> <li>DHCPv6 Client (EI)</li> <li>DHCPv6 Relay Agent (EI)</li> <li>Unicast NLB (EI)</li> </ol>
v1.02.013	<ol style="list-style-type: none"> <li>Support new models: DGS-3120-24PC, DGS-3120-48PC</li> </ol>
v1.01.027	<ol style="list-style-type: none"> <li>Support new models: DGS-3120-24SC, DGS-3120-24SD-DC, DGS-3120-48TC</li> <li>Support enable/disable stacking mode of stacking ports (Port S1 and S2). When disabling stacking mode, these 2 ports can run as normal 10GE ports.</li> <li>802.1ag</li> <li>Y.1731</li> <li>Ethernet Ring Protection Switching (EI)</li> <li>Q in Q (EI)</li> </ol>
v1.00.028	First release. For supported features, please refer to the product specification and manuals for details.

## 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
v2.00.010	NLB.mib	Support unicast NLB
	IEEE8023-LAG-MIB.mib	Support 802.1ax
	L2mgmt.mib	Disable a VLAN trunk member port
	LLDP-MED.MIB	Add LLDP-MED
	lldp.mib	To take system IP address into LLDP management IP interface configuration
	L2ProtocolTunnel.mib	<ol style="list-style-type: none"> <li>Support tunneling STP BPDU</li> <li>Support tunneling GVRP PDU</li> </ol>

		<ul style="list-style-type: none"> <li>3. Support tunneling Cisco Protocols PDU across provider network</li> <li>4. Support configuring drop threshold of L2 Protocol Tunneling</li> </ul>
	VoiceVLAN.mib	Support configuring port join voice VLAN as tag or untag member
	Filter.mib	<ul style="list-style-type: none"> <li>Support RPC Port Mapper Filter</li> <li>Support L3 control packet filter</li> </ul>
	L2mgmtDgs3120-24PC.mib L2mgmtDgs3120-24SC.mib L2mgmtDgs3120-24SC-DC.mib L2mgmtDgs3120-24TC.mib L2mgmtDgs3120-48PC.mib L2mgmtDgs3120-48TC.mib	Support IGMP Authentication
	Auth.mib	Support VLAN-based authentication for JWAC
	Jwac.mib	Add IPv6 JWAC support for EI
	wac.mib	<ul style="list-style-type: none"> <li>1. Support customized pages</li> <li>2. Support dynamic ACL assignment</li> <li>3. Add IPv6 WAC support for EI</li> </ul>
	AAC.mib	Support user authentication & authorization by TACACS+
	smtp.mib	Add SMTP support
	l3mgmt.mib	<ul style="list-style-type: none"> <li>1. Add DHCPv6 Client for EI</li> <li>2. Support enable/disable DHCP Relay per VLAN</li> <li>3. Support DHCP Relay Option 12</li> </ul>
	DHCPv6Relay.mib	Add DHCPv6 Relay Agent for EI
	PPPoEmgmt.mib	Support Circuit-Id insertion
	DDM.mib	Add DDM for EI
	Duld.mib	<ul style="list-style-type: none"> <li>1. Support DULD based on 802.3ah OAM</li> <li>2. Support following dying gasp PDUs and traps: Device reboot, All fan fail</li> </ul>
	Equipment.mib	Support scheduled on/off LED
	PoE.mib	Support scheduled on/off POE
v1.02.013	ie8023ah.mib	Add 802.3ah for EI
	PoE.mib	Add PoE feature
v1.01.027	DHCPRelay.mib	Add DHCP relay VLAN table for SI
v1.00.028	First release. Please refer to datasheet for supported SNMP MIB files.	

## 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
v2.00.010	<ol style="list-style-type: none"> <li>           config igmp_snooping [vlan_name &lt;vlan_name 32&gt;   vlanid &lt;vlanid_list&gt;   all] {state [enable   disable]   fast_leave [enable   disable]   report_suppression [enable   disable]}            changes to            config igmp_snooping [vlan_name &lt;vlan_name 32&gt;   vlanid &lt;vlanid_list&gt;   all ] { state [enable   disable]   fast_leave [enable   disable]   proxy_reporting {state [enable disable]   source_ip &lt;ipaddr&gt;}(1)}         </li> </ol>
v1.02.013	None
v1.01.027	<ol style="list-style-type: none"> <li>           config dhcp_relay add ipif &lt;ipif_name 12&gt; &lt;ipaddr&gt;            config dhcp_relay delete ipif &lt;ipif_name 12&gt; &lt;ipaddr&gt;            changes to            config dhcp_relay add vlanid &lt;vlan_id_list&gt; &lt;ipaddr&gt;            config dhcp_relay delete vlanid &lt;vlan_id_list&gt; &lt;ipaddr&gt;  <b>Note: These commands are changed only in SI, and stay unchanged in EI.</b> </li> <li>           create access_profile profile_id &lt;value 1-768&gt; ...            delete access_profile profile_id &lt;value 1-768&gt; ...            config access_profile [profile_id &lt;value 1-768&gt;   ...] [add access_id [auto_assign   &lt;value 1-1536&gt;] ...            changes to            create access_profile profile_id &lt;value 1-6&gt; ...            delete access_profile profile_id &lt;value 1-6&gt; ...            config access_profile [profile_id &lt;value 1-6&gt;   ...] [add access_id [auto_assign   &lt;value 1-256&gt;] ...         </li> <li>           create egress_access_profile profile_id &lt;value 1-256&gt; ...            delete egress_access_profile profile_id &lt;value 1-256&gt; ...            config egress_access_profile [profile_id &lt;value 1-256&gt;   ...] [add access_id [auto_assign   &lt;value 1-512&gt;] ...            changes to            create egress_access_profile profile_id &lt;value 1-4&gt; ...            delete egress_access_profile profile_id &lt;value 1-4&gt; ...            config egress_access_profile [profile_id &lt;value 1-4&gt;   ...] [add access_id [auto_assign   &lt;value 1-128&gt;] ...         </li> </ol>
v1.00.028	First release



## Problem Fixed:

Firmware Version	Problems Fixed
v2.00.010	<ol style="list-style-type: none"> <li>1. In a DGS-3120 stack, the loop condition will happen on some VLAN though it should be blocked by MST, when Master unit cold restart.</li> <li>2. When reboot member unit of stack, it will show a lot of error messages like following: "snp_stk_process_tx_drop_counter&gt; fatal error, index : 1 , vid = 2020". <b>(DI20110225000002)</b></li> <li>3. When issued "show ipv6 neighbor_cache ipif" command, DGS-3120 incorrectly displayed many entries. <b>(DI20110420000011)</b></li> <li>4. When LACP function has been configured or modified, and then issue command "show config effective" or "show config modify", the output is empty.</li> <li>5. DGS-3120 member unit entered exception mode in a few days after Link down &amp; up several times within a short period. <b>(DI20110124000003)</b></li> <li>6. The MAC address of LLDP per port is incorrect. <b>(DRU20110512000003)</b></li> <li>7. DGS-3120 supports temperature MIB, but swEquipmentCapacity incorrectly returned "no capacity". <b>(DI20110411000001)</b></li> <li>8. When stacking mode was enabled and then disabled, SNMPWALK swUnitMgmtModuleName incorrectly return value of stacking mode. <b>(DI20110411000001)</b></li> <li>9. DGS-3120 incorrectly sends MLD general query with source MAC of all zero after link up. <b>(DI20110406000008)</b></li> <li>10. DGS-3120 cannot communicate to IPv6 client by IPv6 link local address. <b>(DI20110309000008)</b></li> <li>11. DGS-3120 enters exception mode after power down member unit with IGMP Snooping configured. <b>(DI20110228000006)</b></li> <li>12. DGS-3120 do not forward multicast stream to client on non-stp ports when STP is enabled. <b>(DI20110228000007)</b></li> <li>13. The STP role is always "NoSTP" when the port enable STP and LACP. <b>(DI20110322000002)</b></li> <li>14. In stacking mode with configured LACP, the LACP active ports will be incorrect show turn-off, when turn on/off the master/member units. <b>(DRU20110128000003)</b></li> <li>15. Stacking status is not synchronous when ERPS sub-ring was changed. <b>(DI20110401000012)</b></li> <li>16. When switch enable stacking and configured ERPS, packet loop happened after reboot <b>(DI20110228000004)</b></li> <li>17. When topology change of ERPS, DGS-3120 do not clear IPFDB, and IP communication stopped <b>(DI20110208000003)</b></li> <li>18. Packets loop happened after stack member unit reboot of ERPS RPL Owner. <b>(DI20110202000006)</b></li> <li>19. After member unit reboot, the ERPS state of member unit is different from master. <b>(DI20110203000002)</b></li> <li>20. When some STP port is disabled, it takes about 30 seconds to complete MST convergence after topology changed. <b>(DI20110118000007)</b></li> <li>21. IPv4/v6 Multicast Query packets were forwarded from the Blocking port in sub-ring when IGMP/MLD Snooping is enabled. <b>(DI20110120000005)</b></li> </ol>
v1.02.013	<ol style="list-style-type: none"> <li>1. When configuring the multicast filtering mode on filter_unregistered_groups, the IPv6 clients cannot get link local IP correctly.</li> <li>2. DGS-3120 does not converge after CIST priority was changed. <b>(DI20101228000001)</b></li> </ol>
v1.01.027	<ol style="list-style-type: none"> <li>1. In a DGS-3120 stack, if there are over 4,000 active VLANs and also a cross-stack trunk is connected, the switch will not send BPDU and LACP control packets through the cross-stack trunk ports within a few seconds</li> </ol>

- when executing some commands such as "save", "show config current\_config", or "show tech\_support". **(DI20100525000005)**
2. In a DGS-3120 stack, if there are over 4,000 active VLANs and also a cross-stack trunk is connected, the switch will not send BPDU and LACP control packets through the cross-stack trunk ports within a few seconds when one of the stacking member is rebooting or the stacking master is suddenly powered off. **(DI20101109000004), (DI20101109000009), (DI20101109000005)**
  3. In a DGS-3120 stack, if there are over 4,000 active VLANs and also a cross-stack trunk is connected, the switch will send a duplicate TCN through cross-stack trunk ports for about 30 seconds after topology stabilized.
  4. When there are over 50 WAC clients keeping login/logout for few hours, some clients may fail to login. **(DI20101119000005)**
  5. If there are a lot of WAC clients keeping login/logout and WAC function is suddenly disabled, the switch will get into exception mode.
  6. DGS-3120 failed to operate the SD card with FAT16 file system. **(DI20101112000001)**
  7. It takes over 30 seconds to change the STP port status from discarding to forwarding if the received BPDU is with CIST remaining hop count = 0. **(DI20101111000004)**
  8. Some counter values in IF-MIB are not correct. **(DI20101110000009)**
  9. When flash memory is full, all the file names in file system will be garbled **(DI20101112000003)**
  10. When disabling SSL setting for switch Web UI, SSL WAC clients cannot correctly access the WAC login page via https.
  11. The storm control settings does not take effect if the port is STP enabled and also connects to a looped network.
  12. If failing to copy a file to SD card and rebooting the switch right after that, the switch enters exception mode. **(DI20101125000010)**
  13. Error spelling in DHCP Snooping Entry setting page of Web UI. **(DI20101202000009)**
  14. DHCP relay function does not work in SI. **(DRU20101130000004)**
  15. When continuously executing "show wac auth\_state ports" or "show arpentry" command for a period of time, the screen of console will hang up. **(DI20101210000005)**
  16. If authenticating consecutive MAC addresses via Mac Access Control (MAC) and RADIUS database, DGS-3120 will have 5 seconds delay sending every authentication packet to RADIUS. **(DI20101208000008)**
  17. If executing "reset config" command when the switch is undertaking Mac Access Control (MAC) authentication against clients, the switch will enter exception mode.
  18. When over 1,000 clients are authenticated through WAC in Compound Authentication, some clients will be blocked by the switch. **(DI20101208000005)**
  19. When authenticating over 120 clients using Compound Authentication at the same time, some clients failed to authenticate. **(DI20101207000009)**
  20. DGS-3120 does not mirror BPDU TX packet if setting the mirror target port on different units of the stack. **(DI20101130000010)**

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

### Known Issues:

Firmware Version	Issues	Workaround
v2.00.010	None	None
v1.02.013	None	None

v1.01.027	1. The number of ingress ACL profile changes from 768 to 6 and egress ACL profile changes from 256 to 4. However, the total number of ACL rules remains the same.	In order to save profile usage, use longer ACL profile to cover the same type of ACL rules. For example, rules inspecting MAC address, VLAN, or 802.1p respectively, which all belong to MAC ACL, can make use of only one profile that masks MAC address, VLAN, and 802.1p.
	2. In previous firmware release, the ACL sequence is MAC ACL > IP ACL > IPv6 ACL > User Defined ACL. After v1.01.027, the ACL sequence will depend on the ACL profile ID. ACL rules with Lower profile ID will get higher priority.	Please review the profile ID settings before upgrading F/W from v1.00.xxx to v1.01.027 or later version.

**Related Documentation:**

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- ◆ DGS-3120 Series Web UI Reference Guide Release 2.00
- ◆ DGS-3120 Series CLI Reference Guide Release 2.00
- ◆ DGS-3120 Series Hardware Installation Guide Release 1.02