

D-Link

Firmware Version: v1.28.009 Prom Code Version: v1.00.007 Published: Jun 13, 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 <u>Revision History and System Requirement</u> 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 <u>Upgrade Instructions</u> for the correct firmware upgrade procedure.

For more detailed information regarding our switch products, please refer to <u>Related</u> <u>Documentation</u>.

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

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| Revision History and System Requirement: |           |                |                  |
|--|-----------|----------------|------------------|
| Firmware Version                         | Date      | Model          | Hardware Version |
|  |           | DES-3200-10    | A1               |
|  |           | DES-3200-18    | A1               |
|  |           | DES-3200-26    | A1               |
|  |           | DES-3200-28    | A1               |
| Runtime: v1.28.009                       | 10 Jun 11 | DES-3200-28F   | A1               |
| Prom: v1.00.007                          | 13-Jun-11 | DES-3200-28/ME | A1               |
|  |           | DES-3200-10    | B1               |
|  |           | DES-3200-18    | B1               |
|  |           | DES-3200-26    | B1               |
|  |           | DES-3200-28    | B1               |
|  |           | DES-3200-28/ME | A1               |
|  |           | DES-3200-10    | A1               |
| Runtime: v1.25.007                       |           | DES-3200-18    | A1               |
| Prom: v1.00.005                          | 31-Jan-11 | DES-3200-26    | A1               |
|  |           | DES-3200-28    | A1               |
|  |           | DES-3200-28F   | A1               |
|  |           | DES-3200-10    | A1               |
|  |           | DES-3200-18    | A1               |
| Runtime: v1.21.B006<br>Prom: v1.00.B004  | 11-Apr-10 | DES-3200-26    | A1               |
|  |           | DES-3200-28    | A1               |
|  |           | DES-3200-28F   | A1               |
|  |           | DES-3200-10    | A1               |
| Runtime: v1.0.B015                       | 22-Oct-09 | DES-3200-18    | A1               |
| Prom: v1.00.B003                         |           | DES-3200-28    | A1               |
|  |           | DES-3200-28F   | A1               |

Note1: Prom v1.00.B004 adds the booting identification of DES-3200-26 device. It is not necessary to upgrade devices with Prom v1.00.B003.

Note2: Prom v1.00.005 adds the booting identification of DES-3200-28/ME device. It is not necessary to upgrade devices with Prom v1.00.B004 and Prom v1.00.B003. Note3: DES-3200-28/ME is specific for Russia regional project, not a WW model.

Note4: Prom v1.00.007 adds the booting identification of DES-3200-10/18/26/28 B1 device. It is not necessary to upgrade devices with Prom v1.00.005, v1.00.B004, and v1.00.B003.

#### **Upgrade Instructions:**

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D-Link switches support firmware upgrade via TFTP server. You can download the firmware from D-Link web site <u>http://tsd.dlink.com.tw</u>, 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: **9600**
- 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   |
|---|--|
| <pre>download [ firmware_fromTFTP <ipaddr>   <path_filename 64=""> {image_id <int 1-2="">} ]</int></path_filename></ipaddr></pre> | Download firmware file from the TFTP server to the switch.       |
| <pre>config firmware image_id &lt;1-2&gt; [delete   boot_up]</pre>  | Change the boot up image file.                                   |
| show firmware_information   | Display the information of current boot image and configuration. |
| reboot  | Reboot the switch.   |

#### Example:

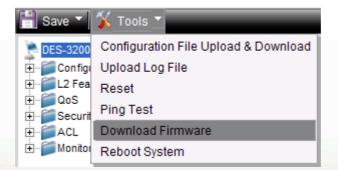
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|      | 1.    | <pre>DES-3200-28F:4#download firmware_fromTFTP 10.90.90.2<br/>des3200_runtime_v1.28.009.had image_id 2<br/>Command: download firmware_fromTFTP 10.90.90.2 des3200_runtime_v1.28.009.had<br/>image_id 2</pre> |
|------|-------|--|
|      |       | Connecting to server Done.<br>Download firmware Done. Do not power off!<br>Please wait, programming flash Done.  |
|      | 2.    | <b>DES-3200-28F:4#config firmware image_id 2 boot_up</b><br>Command: config firmware image_id 2 boot_up  |
|      |       | Success.   |
|      | 3.    | DES-3200-28F:4#show firmware information<br>Command: show firmware information   |
|      | II    | Version Size(B) Update Time From User  |
|      |       | 1.10.B014 3507464 0000/00/00 00:00:00 Serial Port(PROM)       Unknown         1.28.009 3659420 0000/00/00 00:00:00 10.90.90.2(CONSOLE)       Anonymous   |
| Ner- | 1 * 1 | : Boot up firmware   |

| <ul> <li>(SSH) : Firmware update through SSH</li> <li>(WEB) : Firmware update through WEB</li> <li>(SIM) : Firmware update through Single IP Management</li> <li>(SNMP) : Firmware update through SNMP</li> <li>(TELNET) : Firmware update through TELNET</li> <li>(CONSOLE) : Firmware update through CONSOLE</li> </ul> |  |  |
|---|--|--|
| 4. DES-3200-28F:4#reboot<br>Command: reboot   |  |  |
| Are you sure you want to proceed with the system reboot?(y/n) $\mathbf{y}$<br>Please wait, the switch is rebooting  |  |  |
| Boot Procedure V1.00.007  |  |  |
| Power On Self Test 100 %  |  |  |
| MAC Address : 00-1E-58-6E-A5-60<br>H/W Version : A1   |  |  |
| Please wait, loading V1.28.009 Runtime image 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.
- 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.





| Download Firmware |                          |
|-------------------|--------------------------|
| Server IP :       | 10.90.90.2               |
|                   | © IPv6                   |
| Interface Name :  |                          |
| File :            | DES3200_Run_1_28_009.had |
| Image ID :        | 2(Boot Up)               |
|                   | Download                 |
|                   |                          |

- 5. Enter the TFTP Server IP address.
- 6. Enter the name of the firmware file located on the TFTP server.
- 7. Select the Image ID you would like to store the firmware file.
- 8. Click "*Download*" button.
- 9. Wait until the "File Transfer" status reaches 100% and the "Program Firmware" status shows "completed".

| Download Firmware                        |  |
|--|--|
|  |  |
|  |  |
| Current Status: File Transfer Success II |  |
|  |  |
| File Transfer:                           |  |
| Percentage 100%                          |  |
| Program Firmware:                        |  |
| Write Flash Status Completed.            |  |

- 10. To select the boot up image used for next reboot, click **Configuration > Firmware information** in the function tree. 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:**

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| Firmware<br>Version | New Features   |
|---------------------|--|
| V1.28.009           | 1. Add new models DES-3200-10/18/26/28 B1  |
| V1.25.007           | <ol> <li>Add new model DES-3200-28/ME</li> <li>External alarm (ONLY in DES-3200-28/ME)</li> <li>Redundant Power Supply (ONLY in DES-3200-28/ME)</li> </ol> |

|            | 1. Add new model DES-3200-26   |
|------------|--|
|            | 2. Loopback detection V4.0: Support VLAN-based detection /shutdown                                     |
|            | 3. BPDU Attack Protection  |
|            | <ol> <li>MAC-based Access Control (MAC): ACL assignment after successful<br/>authentication</li> </ol> |
|            | 5. Support Microsoft Network Load Balancing (NLB)  |
|            | 6. 802.3ah Ethernet Link OAM   |
|            | 7. 802.1ag Connectivity Fault Management (CFM)   |
| V1.21.B006 | 8. Ethernet Ring Protection Switching (ERPS)   |
|            | 9. PPPoE Circuit ID Insertion  |
|            | 10. MSTP instances extend to 8   |
|            | 11. Display uptime in command show_switch  |
|            | 12. Per egress queue bandwidth control   |
|            | 13. DHCP option 12   |
|            | 14. DHCP Server Screening  |
|            | 15. Enlarge command prompt to 32 bytes   |
| V1.10.B015 | First Release, please refer to datasheet for feature details.  |

### Changes of MIB & D-View Module:

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

| Firmware<br>Version | MIB File  | New Features  |
|---------------------|---|---|
| V1.28.009           | NA  | NA  |
| V1.25.007           | des3200ME-28-L2mgmt.mib<br>des3200ME-28-L3mgmt.mib<br>Equipment.mib<br>des3200me-28-LED.mib                     | Those MIBs are specific for DES-3200-28/ME only   |
|                     | des3200-26-L2mgmt.mib<br>des3200-26-L3mgmt.mib<br>D-View module<br>(DV_DES-3200-26_A1_of_FW_v1.21.B00<br>6.exe) | Add new model DES-3200-26   |
| V1.21.B006          | des3200-10-L2mgmt.mib<br>des3200-18-L2mgmt.mib<br>des3200-28-L2mgmt.mib<br>des3200-28f-L2mgmt.mib               | <ol> <li>Loopback detection: Support<br/>VLAN-based<br/>detection /shutdown</li> <li>802.1ag Connectivity Fault<br/>Management (CFM)</li> </ol> |

|            | BPDUProtection.mib  | BPDU Attack Protection                      |
|------------|---|---|
|            | nlb.mib   | Microsoft Network Load Balancing (NLB)      |
|            | Ie8023ah.mib  | 802.3ah Ethernet Link OAM                   |
|            | IEEE8021-CFM-MIB.mib  | Connectivity Fault Management<br>(CFM)      |
|            | erps.mib  | Ethernet Ring Protection<br>Switching(ERPS) |
|            | PPPoEmgmt.mib   | PPPoE Circuit ID Insertion                  |
|            | rfc1907.mib   | Display uptime in command show_switch       |
|            | Qos.mib   | Per egress queue bandwidth<br>control       |
|            | des3200-10-L3mgmt.mib<br>des3200-18-L3mgmt.mib<br>des3200-28-L3mgmt.mib<br>des3200-28f-L3mgmt.mib | DHCP option 12                              |
|            | Filter.mib  | DHCP Server Screening                       |
| V1.10.B015 | 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<br>Version | Changes   |
|---------------------|---|
| V1.28.009           | N/A   |
| V1.25.007           | N/A   |
| V1.21.B006          | <ol> <li>Change "enable authorization network" to "enable authorization attributes"</li> <li>Change "disable authorization network" to "disable authorization attributes"</li> <li>Modify the command: from save [config   log   all] to save {config   log   all}</li> </ol> |
| V1.10.B015          | First release   |

# **Problem Fixed:**

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|      | Firmware<br>Version | Problems Fixed  |
|------|---------------------|---|
|      | V1.28.009           | <ol> <li>The switch will enter cpu exception when the user login via<br/>SSH.(DRU20110314000001)</li> <li>The switch will enter cpu exception if the user deletes too many ACL rule in</li> </ol> |
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|         |            | <ul> <li>one time by ACL Finder page of Web UI (DRU20110322000008)</li> <li>3. When "multicast port_filtering" is configured as "filter_unregistered_groups",<br/>The PCs cannot ping each other by IPv6 address (DRU20110209000004)</li> </ul> |  |  |  |
|---------|------------|---|--|--|--|
|         | V1.25.007  | 1. The switch cannot send AAA RADIUS request packets to RADIUS server when login via SSH (DRU20101110000001)  |  |  |  |
|         |            | 2. The switch will enter EXCEPTION mode and automatically reboot if a certain   |  |  |  |
|         |            | <ul><li>"config radius" command is configured.(HQ20101206000007)</li><li>3. When checking profile ID (show limited_multicast_addr ports) on each port</li></ul>   |  |  |  |
|         |            | <ul><li>via SNMP, it shows incomplete entries.(DRU20100803000003)</li><li>4. When setting the method of lock_address_mode in Port_security module as</li></ul>  |  |  |  |
|         |            | DeleteOnTimeout, Type of FDB will show Dynamic rather than DeleteOnTimeout (DRU20100812000004)  |  |  |  |
|         |            | <ol> <li>On traffic segmentation enabled ports, the packet forwarding process<br/>forwards the packet before checking if the port is in the forwarding</li> </ol>   |  |  |  |
|         |            | <ul><li>portlist of the port's traffic segmentation portlist. (DRU20100723000004)</li><li>6. The Port Description via web does not display correctly and does not</li></ul>   |  |  |  |
|         |            | correspond to the Port Description via CLI (DRU20100813000002)  |  |  |  |
|         |            | <ol> <li>When a MAC address is already dynamically learned on the port, the<br/>permanent entry of this MAC cannot be created via SNMP operation<br/>(DRU20100827000003)</li> </ol>   |  |  |  |
|         |            | 8. SNMP group cannot be created via Web (DRU20100830000005)   |  |  |  |
|         |            | 9. When MAC collision happens, the collided client that is not in the switch's FDB table can not get IP configuration via DHCP (DRU20100630000008)  |  |  |  |
|         |            | 10. In MSTP setting, ping traffic in a VLAN with a non-CIST MSTP instance will fail (DRU20100708000004)   |  |  |  |
|         |            | 11. The traffic segmentation does not take effect in DES-3200-18 and  |  |  |  |
|         |            | DES-3200-10 GE ports (ie, 17-18, and 9-10, respectively)<br>(DRU20100723000004)   |  |  |  |
|         |            | 12. The switch is not able to return value correctly in certain SNMPwalk operations (DRU20100520000003)   |  |  |  |
|         |            | 13. The switch cannot successfully save configuration via WebUI in Linux platform (DRU20100531000002)   |  |  |  |
|         |            | 14. The Clients can not get IP from the DHCP server sometimes when connecting to the switch. (DRU20100429000003)  |  |  |  |
|         |            | 15. ERPS/STP/802.1x discarding ports are not masked out from the forwarding ports and those ports do not drop ARP/IP packets received in discarding ports   |  |  |  |
|         |            | so that the switch show incorrect FDB entry (DRU20100514000005)<br>16. Inappropriate memory management causes that the switch enters exception  |  |  |  |
|         |            | mode when executing some snmpwalk commands (DRU20100518000003)<br>17. Inappropriate memory management causes that the switch enters exception   |  |  |  |
|         |            | mode when trying to get LLDP data via snmp (HQ20100412000012)   |  |  |  |
|         |            | <ol> <li>Loop back detection(LBD) packets are treated as unauthorized packets by<br/>MAC Access Control/802.1X, which causes LBD not to work</li> </ol>   |  |  |  |
|         |            | (HQ20100420000005)  |  |  |  |
|         |            | 19. The switch can not upload/download configuration or logs via WebUI when using Firefox 3.62 (HQ20100331000002)   |  |  |  |
|         |            | 1. The ACL counter function does not work properly when creating an ACL counter with c tag (DI20100120000014)   |  |  |  |
|         |            | 2. If adding ACL rules with the same examination part such as ethernet type to  |  |  |  |
|         | V1.21.B006 | 2 profiles respectively, the switch pops up the warning message "A similar profile already exists with profile_id 1!". The ACL configuration will fail (DI20100122000012)   |  |  |  |
|         |            | <ul><li>fail.(DI20100122000012)</li><li>A legal ping packet destined to x.x.254.255/16 is treated as smurf attack and</li></ul>   |  |  |  |
|         |            | <ul><li>is dropped by the switch (DI20091023000003)</li><li>4. When creating an ACL profile by two different command orders via SNMP, the</li></ul>   |  |  |  |
|         |            | ACL profile works in one SNMP command order and does not work in the  |  |  |  |
|         |            |   |  |  |  |
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| other SNMP command order (DI20091028000022) |            | other SNMP command order (DI20091028000022)   |
|---|------------|---|
|   |            | <ol> <li>While creating packet content filtering ACL rule via WebUI, the Profile can be created but the access_id can not be created (DI20091102000023)</li> </ol>  |
|   |            | <ol> <li>When ISM VLAN, 802.1X, and Guest VLAN are enabled on a port, the port<br/>cannot pass multicast if the port is authenticated by 802.1X.<br/>(DI20091110000021)</li> </ol>  |
|   |            | 7. The switch will lose the access_id setting in ACL after saving configuration and rebooting the switch (DI20091123000011)   |
|   |            | <ol> <li>The switch does not drop invalid IGMP join packet when the destination MAC<br/>address of IGMP join packet is not the same as joined multicast group<br/>(DI20091208000017)</li> </ol>   |
|   |            | 9. Jumbo frame status is not synchronized between CLI and WEB. When jumbo_frame is enabled via CLI, the WEB still displays "jumbo_frame disable" (DI20091215000020)   |
|   |            | 10. When creating an ACL profile with L2 and L3 parts, the switch will display L3 and L4 part in the created profile (DI20091215000023)   |
|   |            | 11. When setting the flow_meter, traffic rate's flapping range is not precise. For example, when setting it to 1000kbps, the flap would range between (494kb to 1311 kb) (DI20090828000018) Please refer to the known issue in firmware version V1.10.B015. |
|   | V1.10.B015 | First Release   |

Known Issues:

| Firmware<br>Version | Issues  | Workaround   |
|---------------------|---|--|
| V1.28.009           | N/A   | N/A  |
| V1.25.007           | N/A   | N/A  |
| V1.10.B015          | TCP traffic on per-flow bandwidth control is inaccurate | Upgrade to V1.10.B016 or above,<br>but only in the situation that the<br>bandwidth is less than 10M. |



### **Related Documentation:**

- DES-3200 Series HW Installation Guide v1.28
- DES-3200 Series CLI Reference Guide v1.28
- DES-3200 Series Web UI Reference Guide v1.28

