Firmware Version: V4.00.024
Prom Code Version: V4.00.002
Published: Jan 13, 2012

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
- 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: v.4.00.024 Prom: v4.00.002	10-Jan-12	DES-3200-26	C1
		DES-3200-26-DC	C1
		DES-3200-28	C1
		DES-3200-28P	C1
		DES-3200-52	C1
		DES-3200-52P	C1
Runtime: v.4.00.020 Prom: v4.00.001	6-Dec-11	DES-3200-28P	C1
		DES-3200-52	C1
		DES-3200-52P	C1
Runtime: v1.28.009 Prom: v1.00.007	13-Jun-11	DES-3200-10	A1
		DES-3200-18	A1
		DES-3200-26	A1
		DES-3200-28	A1
		DES-3200-28F	A1
		DES-3200-28/ME	A1
		DES-3200-10	B1
		DES-3200-18	B1
		DES-3200-26	B1
		DES-3200-28	B1
Runtime: v1.21.B006 Prom: v1.00.B004	11-Apr-10	DES-3200-10	A1
		DES-3200-18	A1
		DES-3200-26	A1
		DES-3200-28	A1
		DES-3200-28F	A1

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Runtime: v1.0.B015 Prom: v1.00.B003	22-Oct-09	DES-3200-10	A1
		DES-3200-18	A1
		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.

Note5: Runtime: v.4.00.020 & Prom: v4.00.001 is for DES-3200 C1 only (DES-3200-28P/52/52P C1).

Note6: Runtime: v.4.00.024 & Prom: v4.00.002 is for DES-3200 C1 only (DES-3200-26/26-DC/28/28P/52/52P C1).

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 DES-3200 series C1 (DES-3200-26/26-DC/28/28P/52/52P C1, FW: R4.00.020 or above)

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. **DES-3200-28P:4#download firmware_fromTFTP 10.54.71.1 src_file_ DES3200_RUNTIME_V4.00.020.had**
   Command: download firmware_fromTFTP 10.54.71.1 src_file DES3200_RUNTIME_V4.00.020.had

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

2. **DES-3200-28P:admin#config firmware image c:/ DES3200_RUNTIME_V4.00.020.had boot_up**
   Command: config firmware image c:/ DES3200_RUNTIME_V4.00.020.had boot_up

      Success.

3. **DES-3200-28P:4#show switch**

Command: display the Switch information

```
DES-3200-28P:admin#show switch
Command: show switch

Device Type             : DES-3200-28P Fast 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 4.00.000
Firmware Version        : Build 4.00.020
Hardware Version        : C1
System Name             :
System Location         :
System Uptime           : 0 days, 2 hours, 2 minutes, 28 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                   : Enabled
SSL Status              : Disabled
CTRL+C ESC q Quit SPACE n Next Page ENTER Next Entry a All
```

4. **DES-3200-28P: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.
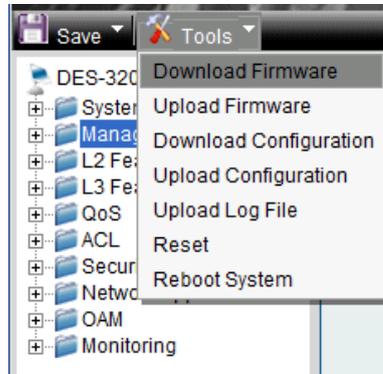
5. Enter the TFTP Server IP address.
6. Enter the location and name of the Source File on the TFTP server(ex. DES3200_RUNTIME_V4.00.020.had)
7. Click "**Download**" button.
8. Wait until the "Current Status" reaches 100% and shows "Done".
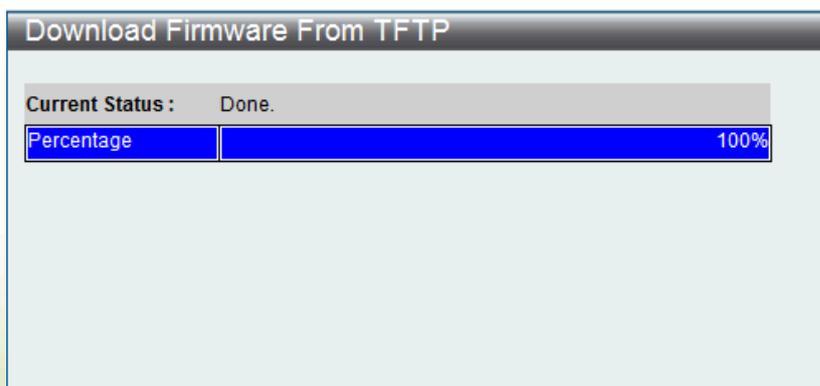
9. To select the boot up image used for next reboot, click "**Network Application" > "Flash File System Settings"** in the function tree. Enter the Current Path string and click the Go button or click the C: to enter "Flash File System Setting- Search for Drive" window.

10. Click corresponding "**Boot UP**" button to specify the firmware that will be used for next and subsequent boot up.
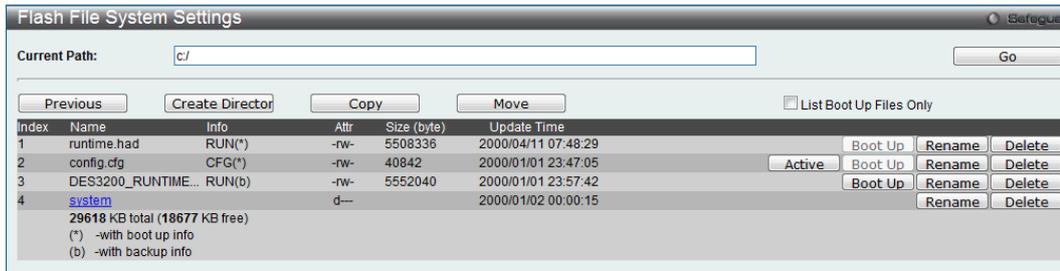
11. To reboot the switch, select **Tools > Reboot System** from the banner.
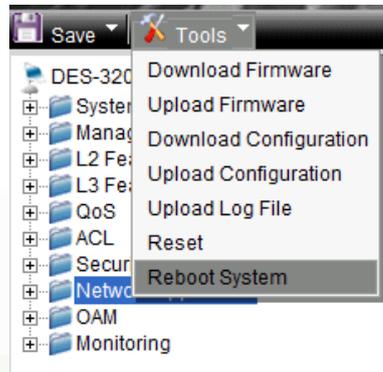
12. Select "**Yes"** and click "**Reboot**" button to reboot the switch.

For DES-3200 series A1/B1 (DES-3200-10/18/16/28/28F/28/ME A1, DES-3200-10/18/26/28 B1, FW: R1.28 or above)

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
download [firmware_fromTFTP <ipaddr> <path_filename 64> {image_id <int 1-2>}]	Download firmware file from the TFTP server to the switch.
config firmware image_id <1-2> [delete | boot_up]	Change the boot up image file.
show firmware_information	Display the information of current boot image and configuration.
reboot	Reboot the switch.

Example:

```
5.  DES-3200-28F:4#download firmware_fromTFTP 10.90.90.100
    des3200_runtime_v1.21.b006.had image_id 2
   Command: download firmware_fromTFTP 10.90.90.100 des3200_runtime_v1.20.b011.had
   image_id 2

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


6.  DES-3200-28F:4#config firmware image_id 2 boot_up
      Command: config firmware image_id 2 boot_up

      Success.


7.  DES-3200-28F:4#show firmware information
       Command: show firmware information

  ID  Version   Size(B) Update Time          From               User
  --  --------- ------- -------------------  ------------------ ---------------
  1  1.10.B014 3507464 0000/00/00 00:00:00  Serial Port(PROM)     Unknown
 *2  1.21.B006 3659420 0000/00/00 00:00:00  10.90.90.100(CONSOLE) Anonymous


 '*'      : Boot up firmware
 (SSH)    : Firmware update through SSH
 (WEB)    : Firmware update through WEB
 (SIM)    : Firmware update through Single IP Management
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```
(SNMP)    : Firmware update through SNMP
(TELNET)  : Firmware update through TELNET
(CONSOLE) : Firmware update through CONSOLE
```

8. **DES-3200-28F:4#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.B003
-------------------------------------------------------------------------

 Power On Self Test ...................................... 100 %

 MAC Address  : 00-1E-58-6E-A5-60
 H/W Version  : A1

 Please wait, loading V1.20.B011 Runtime image ............. 100 %
```

Upgrade using Web-UI

13. Connect a workstation installed with java SE runtime environment to any switch port of the device.
14. 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.
15. Enter administrator's username and password when prompted. It should be noted that the username and password are blank by default.
16. To update switch's firmware or configuration file, select **Tools > Download Firmware** from the banner.
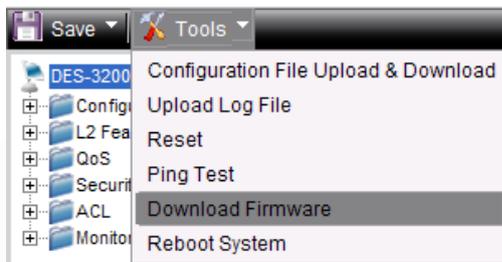
17. Enter the TFTP Server IP address.
18. Enter the name of the firmware file located on the TFTP server.
19. Select the Image ID you would like to store the firmware file.
20. Click "*Download*" button.
21. Wait until the "File Transfer" status reaches 100% and the "Program Firmware" status shows "completed".

22. 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.

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

New Features:

Firmware Version (DES-3200 C1)	New Features
V4.00.024	1. Add new models DES-3200-26/26-DC/28 C1
V4.00.020	1. Add new models DES-3200-28P/52/52P C1

Firmware Version (DES-3200 A1/B1)	New Features
V1.28.009	1. Add new models DES-3200-10/18/26/28 B1
V1.25.007	1. Add new model DES-3200-28/ME 2. External alarm (ONLY in DES-3200-28/ME) 3. Redundant Power Supply (ONLY in DES-3200-28/ME)
V1.21.B006	1. Add new model DES-3200-26 2. Loopback detection V4.0: Support VLAN-based detection /shutdown 3. BPDU Attack Protection 4. MAC-based Access Control (MAC): ACL assignment after successful authentication 5. Network Load Balancing (NLB) 6. 802.3ah Ethernet Link OAM 7. 802.1ag Connectivity Fault Management (CFM) 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 detail.

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 (DES-3200 C1)	MIB File	New Features
V4.00.024	NA	Update the MIB Sub-model name
V4.00.020	First release	

Firmware Version (DES-3200 A1/B1)	MIB File	New Features
V1.28.009	NA	NA
V1.25.007	des3200ME-28-L2mgmt.mib des3200ME-28-L3mgmt.mib Equipment.mib des3200me-28-LED.mib	Those MIBs are specific for DES-3200-28/ME only
V1.21.B006	des3200-26-L2mgmt.mib des3200-26-L3mgmt.mib DV_DES-3200-26V1.21_V1.21R05-F1.21B003	Add new model DES-3200-26
	des3200-10-L2mgmt.mib des3200-18-L2mgmt.mib des3200-28-L2mgmt.mib des3200-28f-L2mgmt.mib	1. Loopback detection: Support VLAN-based detection /shutdown 2. 802.1ag Connectivity Fault Management (CFM)
	BPDUProtection.mib	BPDU Attack Protection
	nlb.mib	Network Load Balancing(NLB)
	Ie8023ah.mib	802.3ah Ethernet Link OAM
	IEEE8021-CFM-MIB.mib	Connectivity Fault Management (CFM)
	erps.mib	Ethernet Ring Protection Switching(ERPS)
	PPPoEmgmt.mib	PPPoE Circuit ID Insertion

	rfc1907.mib	Display uptime in command show_switch
	Qos.mib	Per egress queue bandwidth control
	des3200-10-L3mgmt.mib des3200-18-L3mgmt.mib des3200-28-L3mgmt.mib 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 Version (DES-3200 C1)	Changes
V4.00.024	NA
V4.00.020	First Release

Firmware Version (DES-3200 A1/B1)	Changes
V1.28.009	NA
V1.25.007	NA
V1.21.B006	1. Change "enable authorization network" to "enable authorization attributes" 2. Change "disable authorization network" to "disable authorization attributes" 3. Modify the command: from save [config | log | all] to save {config | log | all}
V1.10.B015	First release

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Problem Fixed:

Firmware Version	Problems Fixed
V4.00.024	NA
V4.00.020	[D-View module] When user execute DES-3200 C1 D-view module via HP Open View, it will fail to close its module after turn off HP Open View program.

Firmware Version	Problems Fixed
V1.28.009	1. The switch will enter cpu exception when the user login via SSH.(DRU20110314000001) 2. The switch will enter cpu exception if the user deletes too many ACL rule in one time by ACL Finder page of Web UI (DRU20110322000008) 3. When "multicast port_filtering" is configured as "filter_unregistered_groups",The PCs cannot ping each other by IPv6 address (DRU20110209000004)
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 "config radius" command is configured.(HQ20101206000007) 3. When checking profile ID (show limited_multicast_addr ports) on each port via SNMP, it shows incomplete entries.(DRU20100803000003) 4. When setting the method of lock_address_mode in Port_security module as DeleteOnTimeout, Type of FDB will show Dynamic rather than DeleteOnTimeout (DRU20100812000004) 5. On traffic segmentation enabled ports, the packet forwarding process forwards the packet before checking if the port is in the forwarding portlist of the port's traffic segmentation portlist. (DRU20100723000004) 6. The Port Description via web does not display correctly and does not correspond to the Port Description via CLI (DRU20100813000002) 7. When a MAC address is already dynamically learned on the port, the permanent entry of this MAC cannot be created via SNMP operation(DRU20100827000003) 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) (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) 16. Inappropriate memory management causes that the switch enters exception mode when executing some snmpwalk commands (DRU20100518000003) 17. Inappropriate memory management causes that the switch enters exception mode when trying to get LLDP data via snmp (HQ20100412000012) 18. Loop back detection(LBD) packets are treated as unauthorized packets by MAC Access Control/802.1X, which causes LBD not to work (HQ20100420000005) 19. The switch can not upload/download configuration or logs via WebUI when using Firefox 3.62 (HQ20100331000002)
V1.21.B006	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 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) 3. A legal ping packet destined to x.x.254.255/16 is treated as smurf attack and is dropped by the switch (DI20091023000003) 4. When creating an ACL profile by two different command orders via SNMP, the ACL profile works in one SNMP command order and does not work in the other SNMP command order (DI20091028000022) 5. While creating packet content filtering ACL rule via WebUI, the Profile can be created but the access_id can not be created (DI20091102000023) 6. When ISM VLAN, 802.1X, and Guest VLAN are enabled on a port, the port cannot pass multicast if the port is authenticated by 802.1X. (DI20091110000021) 7. The switch will lose the access_id setting in ACL after saving configuration and rebooting the switch (DI20091123000011) 8. The switch does not drop invalid IGMP join packet when the destination MAC address of IGMP join packet is not the same as joined multicast group (DI20091208000017) 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, setting 1000kbps, but the flap ranges between (494kb to 1311 kb) (DI20090828000018). Please refer to the known issue in firmware version V1.10.B015.
V1.10.B015	First Release

註解 [01]: Check behavior

註解 [02]: rephrase

註解 [03]: more precise

註解 [04]: What's wrong?
Incorrect format?

Known Issues:

Firmware Version	Issues	Workaround
V4.00.024	1. When use "Config ssh server rekey() to specify time to regenerate session key, the behavior of time setting will be "always". 2. "ethernet oam port x event log()" will fail to display the event log of "Critical Event Local" and "Device encountered an OAM critical event" when physical port is link down. 3. "rd" command is used to delete a directory in the file system. If there are files existing in the directory, this command will fail and return an error message. In V4.00.020, all the files in the directory will change the attribute (remove the backup attribute) when using "rd" command to delete this directory. 4. [MLD snooping]When the device configures V1 version and gets the v2 version query packet with the lower IP address, the system will show error. 5. When client release a DHCP IP address and configure a static IP, the DHCP release packet doesn't be relayed 6. [802.1x]Accounting will not work for each host when 802.1x mac_based mode is enabled. (The behavior of 802.1x mac_based mode will be the same as we enable 802.1x port_based mode) 7. In ILW testing, when the mib node "smtpTestMsgContent" (Size list: 1: 0..512) set the input string length as "512", we still can't use string length longer than 256 characters. 8. When using PEAP authentication, accounting user name is wrong. (Now the user name field is "outer name" (incorrect), not "inner name"(correct). 9. Switch can not upload the configuration file to specific TFTP server (pumpkin v2.7.2). 10. When the client moves from MBA(Mac-Base Authentication) enabled port to the other non-MBA(Mac-Base Authentication) port, FDB entry is not cleared 11. "[IGMP_snooping] IGMP_snooping data_driven_group learning was incorrect: NQ will leave all member ports and may not re-learn all data driven groups. Depending on which of the two packets, GS query and data traffic, is received by NQ the outcome will be different... 12. [QinQ] When user use "config qinq ports x-x role uni outer_tpid 0x8100", the switch will	

	recognize the incoming packets(inner tpid usually is 0x8100) as outer tagged and we'll drop the packet. 13. When user use Telnet or SSH connection: once IP address is changed , switch doesn't send "termination" packet to inform user even Telnet or SSH connection is closed. 14. If there are more than 1 SSH connection established, some connection session level will be changed. 15. When "IPv6" is disable (default) or config multicast vlan_ filtering_mode is set "filter_unregistered_groups", it will fail to forward ICMPv6 with DA=33-33-XX-XX-XX-XX packet	
1. V4.00.020	1. When use "Config ssh server rekey() to specify time to regenerate session key, the behavior of time setting will be "always". 2. "ethernet oam port x event log()" will fail to display the event log of "Critical Event Local" and "Device encountered an OAM critical event" when physical port is link down. 3. "rd" command is used to delete a directory in the file system. If there are files existing in the directory, this command will fail and return an error message. In V4.00.020, all the files in the directory will change the attribute (remove the backup attribute) when using "rd" command to delete this directory. 4. [MLD snooping]When the device configures V1 version and gets the v2 version query packet with the lower IP address, the system will show error. 5. When client release a DHCP IP address and configure a static IP, the DHCP release packet doesn't be relayed 6. [802.1x]Accounting will not work for each host when 802.1x mac_based mode is enabled. (The behavior of 802.1x mac_based mode will be the same as we enable 802.1x port_based mode) 7. In ILW testing, when the mib node "smtpTestMsgContent" (Size list: 1: 0..512) set the input string length as "512", we still can't use string length longer than 256 characters. 8. When using PEAP authentication, accounting user name is wrong. (Now the user name field is "outer name" (incorrect), not "inner name"(correct). 9. Switch can not upload the configuration file to specific TFTP server (pumpkin v2.7.2). 10. When the client moves from MBA(Mac-Base Authentication) enabled port to the other	

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12. [QinQ] When user use "config qinq ports x-x role uni outer_tpid 0x8100", the switch will recognize the incoming packets(inner tpid usually is 0x8100) as outer tagged and we'll drop the packet.
13. When user use Telnet or SSH connection: once IP address is changed , switch doesn't send "termination" packet to inform user even Telnet or SSH connection is closed.
14. If there are more than 1 SSH connection established, some connection session level will be changed.
15. When "IPv6" is disable (default) or config multicast vlan_ filtering_mode is set "filter_unregistered_groups", it will fail to forward ICMPv6 with DA=33-33-XX-XX-XX-XX packet

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

Related Documentation:

- DES-3200 Series R4.0 H/W Installation Guide
- DES-3200 Series R4.0 CLI Reference Guide
- DES-3200 Series R4.0 Web UI Reference Guide

- DES-3200 Series R1.28 H/W Installation Guide
- DES-3200 Series R1.28 CLI Manual
- DES-3200 Series R1.28 User Manual