



Firmware Version: v2.60.017 Prom Code Version: v1.00.B008 Published: Jul 23, 2010

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 <u>Upgrade</u> <u>Instructions</u> for the correct firmware upgrade procedure.

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

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
		DES-3528	A1, A2, A3, A4
		DES-3528DC	A1, A2
Runtime: v2.60.017 Prom: v1.00.B008	23-Jul-10	DES-3528P	A1, A2
		DES-3552	A1, A2, A3
		DES-3552P	A1, A2
		DES-3528	A1, A2, A3, A4
		DES-3528DC	A1, A2
Runtime: v2.01.B042 Prom: v1.00.B008	27-Nov-09	DES-3528P	A1, A2
		DES-3552	A1, A2, A3
		DES-3552P	A1, A2
	08-June-09	DES-3528	A1, A2, A3, A4
Runtime: v2.00.B033		DES-3528DC	A1, A2
Prom: v1.00.B007		DES-3528P	A1, A2
		DES-3552	A1, A2, A3
		DES-3528	A1, A2, A3, A4
Runtime: v1.03.B013	20-Mar-09	DES-3528DC	A1, A2
Prom: v1.00.B007	20-IVIAI -09	DES-3528P	A1, A2
		DES-3552	A1, A2, A3
Runtime: v1.01B030 Prom: 1.00.B006	23-Apr-08	DES-3528	A1





#### **Upgrade Instructions:**

**Caution:** This version only supports direct firmware upgrade from v1.03 or later version. Direct upgrade from any version prior to v1.03 is not suggested and may result in unknown issues. Downgrade to any version prior to v.1.03 is not supported.

If one of the switch images has the firmware version prior to v.1.03, then this image can not be selected as the boot up image.

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: 8Parity: NoneStop 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.
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:

1. DES-3528:5#download firmware\_fromTFTP 10.90.90.91 R200B033.had image\_id 2 Command: download firmware\_fromTFTP 10.90.90.91 R200B033.had image\_id 2

2. **DES-3528:5#config firmware image\_id 2 boot\_up** Command: config firmware image\_id 2 boot\_up

Success.

3. DES-3528:5#show firmware information

Command: show firmware information

ID Version	Size(B) Upd	late Time	From	User
		/02/04 17:00:26 1 9/08/05 02:25:85	` '	Anonymous Anonymous





- '\*' means boot up firmware
- (R) means firmware update through Serial Port(RS232)
- (T) means firmware update through TELNET
- (S) means firmware update through SNMP
- (W) means firmware update through WEB
- (SSH) means firmware update through SSH
- (SIM) means firmware update through Single IP Management

#### 4. DES-3528:5#reboot

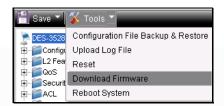
Command: reboot

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

Boot Procedure	V1.00.B007
Power On Self Test	
MAC Address : 00-1E-58-4F-F7-D0 H/W Version : A1	
Please wait, loading V2.00.B033 Runtime image	100 %
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
- 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 Firm	ware	
Server	IP: 172.17.5.128	
F	ile : R200B033.had	
Image	ID: 2	
		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".





- 10. To select the boot up image used for next reboot, click **Configuration > Firmware information** in the function tree. Click corresponding "**Set Boot**" button to specify the firmware that will be used for next and subsequent boot up.
- 11. To reboot the switch, select **Tools > Reboot System** from the banner.
- 12. Select "Yes" and click "Reboot" button to reboot the switch.





# **New Features:**

Firmware	New Features
Version	new reatures
v2.60.017	<ol> <li>JWAC enhancement:         <ul> <li>Be able to show IP address and user ID with MAC address for authenticated JWAC user in logs.</li> <li>Support roaming function for authenticated user between ports of the same VLAN.</li> </ul> </li> <li>DES-3528P and DES-3552P support legacy PoE Powered Device (PD).</li> <li>IPv6 ready logo phase 2 host mode</li> <li>DHCPv6 client</li> <li>IPv6 dual stack</li> <li>IPv6 Management via Web, SNMP and Telnet</li> <li>WAC enhancement:         <ul> <li>Support IPv6 clients for host-based WAC</li> <li>Support roaming function for authenticated user between ports of the same VLAN.</li> </ul> </li> <li>DHCPv6 Relay</li> <li>IPv6 Neighbor Discovery</li> <li>Compound Authentication         <ul> <li>Any mode (802.1X, MAC, WAC, JWAC)</li> <li>802.1X+IMPB, MAC+IMPB, WAC+IMPB, JWAC+IMPB</li> </ul> </li> <li>Add port link change trap</li> <li>Change the aging time granularity of ARP table to 1 minute</li> <li>4-level user account</li> <li>Memory utilization monitoring by SNMP, CLI &amp; Web</li> <li>Support Inter-VLAN routing feature:         <ul> <li>Dynamic host route</li> <li>Ipv4/v6 static route</li> </ul> </li> <li>Traceroute</li> <li>L2 Protocol Tunneling</li> <li>Per port, per VLAN MAC address learning control</li> <li>ERPS</li> <li>IMPB a.8</li> <ul> <li>DHCPv6 and NDP Snooping</li> </ul> <li>BO2.3ah extension: D-link Unidirectional Link Detection (DULD)</li> <li>Enlarge the IGMP/MLD Snooping Group to 1024</li> <li>Support RADIUS failover options when RADIUS times out:         <ul> <li>Use local database for authentication or</li> <li>Bypass authentication and assign client to port VLAN or guest VLAN or</li> </ul> </li> </ol>
	Block the client for a period of time.
v2.01.B042	1. Support new model DES-3552P
v2.00.B033	<ol> <li>Cable Diagnostics</li> <li>MDI/MDIX function manual disablement</li> </ol>





v2.00.B033

- 3. IGMP Snooping enhancement
  - Host-Based IGMP Snooping Fast Leave
  - IGMP v3 source filter
  - Allow unregistered multicast traffic (not in multicast table) being forwarded to the router port even when the multicast filtering mode is set to 'filter\_unregistered\_groups'
  - Support the configuration of maximum allowed multicast groups.
     Responsive actions including drop or replacement can be triggered while the threshold is reached
  - Support the setting of Limited IP Multicast profile on a per VLAN basis
- 4. MLD v2 source filter
- 5. Loopback detection: Support various traps for loopback detection status including loop\_detected, loop\_cleared and both
- 6. 802.3ah Ethernet OAM
- 7. 802.1ag CFM
- 8. RSPAN (Remote SPAN)
- 9. Time-based PoE
- 10. Physical Stacking Architecture
- 11. When under QinQ mode, the switch NNI port supports the manual selection between 802.1ad and 802.1d destination address formats for the GVRP packets flowing through it, providing better interoperability with legacy devices that only understand GVRP address in 802.1d format.
- 12. ISM VLAN enhancement
  - IPv6 MLD snooping v1/v2
  - Source ports can be untagged
  - Support the modification of ISM VLAN's priority level for better traffic control
  - Support the configuration of two ISM VLAN source ports on the switch.
     When working with STP, it will allow the forwarding of multicast stream using backup link in case the primary link goes down
- 13. Advanced QinQ functions that allow the insertion of customer VLAN tag and the configuration of inner TPID
- 14. Voice VLAN
- 15. Subnet-based VLAN
- 16. VLAN trunking
- 17. ARP entry's minimum aging time can be set to 30 sec. ARP entry's aging time can remain unaffected when being accessed by switch's internal process
- 18. Support 16 IP interfaces
- 19. Policy-based routing
- 20. Proxy ARP
- 21. SNMP trap and system log support for Gratuitous ARP events
- 22. Configurable user 802.1p priority on each port.
- 23. Scheduling mechanisms (strict or WRR) can be configured on a per port basis.
- 24. CoS Bandwidth Control that supports
  - Per egress queue bandwidth control
  - Per egress queue bandwidth guarantee
- 25. ACL function supports up to 14 profiles and 1792 rules per system
- 26. VLAN-based ACL
- 27. Allows the configuration of SSH port to any desired port number
- 28. Broadcast/Multicast Storm Control allows the configuration of 5 minutes recovery timer for shutdown ports





#### 29. IMPB V3.5

- Configurable threshold number for illegitimate entries that can be recorded in the FDB
- 30. Web-based Access Control (WAC) enhancement
  - Host-based authentication
  - Dynamic VLAN assignment based on the VLAN attribute dispatched from RADIUS server after successful authentication with RADIUS
  - Identity-driven QoS: Support the assignment of 1. Ingress/egress bandwidth attributes 2. 802.1p priority attribute to the port based on the attributes dispatched from RADIUS server after successful authentication with RADIUS
- 31. MAC-based Access Control (MAC) enhancement
  - Port-based Authentication
  - Identity-driven QoS: Support the assignment of 1. Ingress/egress bandwidth attributes 2. 802.1p priority attribute - to the port based on the attributes dispatched from RADIUS server after successful authentication with RADIUS
  - Host-based Authentication: enlarge the number of supported users from 16 per port, 448 per switch, to 1000 per port, switch and stack.
  - Host-based Authentication supports the manual configuration of host numbers from 1 to 1000 on a per port basis

#### 32.802.1X

- Identity-driven QoS: Support the assignment of 1. Ingress/egress bandwidth attributes 2. 802.1p priority attribute to the port based on the attributes dispatched from RADIUS server after successful authentication with RADIUS
- Host-based Access Control: enlarge the number of supported users from 16 per port, 448 per switch, to 448 per port, switch and stack.
- Support "Reply Message" attribute from RADIUS server so the switch can forward the "Reply Message" attribute to 802.1x clients
- 33. Japanese Web-based Access Control (JWAC): Enhance the maximum number of on-line users from 256 per port/switch to 1000 per port/switch/stack
- 34. MAC filtering via FDB
- 35. L3 Control Packet Filtering: Support the filtering of DVMRP, PIM, IGMP Query, OSPF, RIP, or VRRP packets.
- 36. Multiple Authentication
- 37. Authentication database failover: Be able to switch to local database for authentication when RADIUS server fails.
- 38. Remove the display of MAC address information from "show log" switch command
- 39. Telnet Client
- 40. Trusted host that supports up to 10 IP addresses or subnet entries in total
- 41. SYSLOG
  - Support WAC/MAC event logging
  - Support storm control block mode logging
  - Support spoofing attack logging with IP, MAC address and corresponding port information
- 42. sFlow support
- 43. DHCP relay option 60, 61
- 44. DHCP relay option 82 with group ID support
- 45. DHCP Server enhancement: Support DHCP server configuration via Web GUI & SNMP
- 46. Add user IP information in admin ID/password change event logging
- 47. DNS Relay



v2.00.B033





v2.00.B033	<ul> <li>48. Send trap and log when the switch temperature goes over 80 Degrees or downs under 75 Degrees</li> <li>49. ARP Spoofing Attack Prevention</li> <li>50. Show product serial number on Web GUI and CLI</li> <li>51. Add BPDU Attack Protection supports in WEB and MIB</li> <li>52. When using SNMP to command the switch to download a firmware file, send a trap while the firmware upgrade finishes</li> </ul>	
v1.03.B013	<ol> <li>Support DES-3528DC, DES-3528P, DES-3552</li> <li>DHCP Local Relay</li> <li>PPPoE Circuit-ID Tag Insertion</li> <li>DHCP Server (Only supports CLI. No Web GUI &amp; SNMP)</li> </ol>	
v1.01.B035	<ol> <li>Support DES-3528 A2 hardware.</li> <li>Support D-view 6.0 platform.</li> </ol>	
v1.01.B030	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	MIB File	New Features
Version		
	ACL.mib	Be able to configure ACL rule and profile at the same time.
	Auth.mib	Add VLAN-based authentication feature
	L2ProtocolTunnel.mib	Support L2 Protocol Tunneling function
	DHCPRelay.mib	Use swDHCPRelayVlanCtrlTable instead of swDHCPLocalRelayMgmt to support the relay server configuration per VLAN basis.
	DULD.mib	Support DULD function
	IPMacBind.mib	<ol> <li>Add IPv6 DHCP Snooping function.</li> <li>Add IPv6 IP-MAC-Port Binding function.</li> <li>Add ND snooping function.</li> <li>Add IPv6 IP-MAC-Port Binding unauthenticated trap.</li> </ol>
	Jwac.mib	Add JWAC roaming function.
	I3mgmtDES3528.mib I3mgmtDES3528dc.mib I3mgmtDES3528p.mib I3mgmtDES3552.mib I3mgmtDES3552P.mib	Add IPv4 v6 inter-VLAN routing functions
	mba.mib	<ol> <li>Add MAC per VLAN authentication display function.</li> <li>Add MAC timer setting function.</li> </ol>
v2.60.017	McastFilter.mib	Add IPv6 multicast filter support
	McastVLAN.mib	Add the state configuration of multicast VLAN forward unmatched packet
	PktStormCtrl.mib	Add storm control log and recover timer
	PoE.mib	Support legacy PD detection
	ProtocolVLAN.mib	Remove swProtocolVLANTable support. Use standard MIB RFC4363 to cover this function.
	SSH.mib	Add IPv6 host address support
	StaticFdb.mib	Support static FDB configurations
	staticMacBasedVlan.mib	Be able to display the type of VLAN which belongs to compound authentication.
	SysLog.mib	Add IPv6 log server support
	VoiceVLAN.mib	Remove Voice VLAN trap support
	wac.mib	Add WAC IPv6 authentication and per VLAN authentication functions.
	erps.mib	Support ERPS function
	PortSecurity.mib	Support Port Security function
	IPv6StaticRoute.mib	Support IPv6 static route function
	vlancounter.mib	Support VLAN counter function
	ie8023ad.mib	Replace original proprietary MIB by using standard MIB
	rfc2863.mib	Support port link change trap





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	rfc2925t.mib	Support trace route function
v2.60.017	rfc4022.mib	Support TCP MIB
	rfc4293.mib	Support IP forwarding table
	L2mgmtDES3552P.mib L3mgmtDES3552P.mib	Support new model DES-3552P
v2.01.B042	<ol> <li>Release new D-View Modu</li> <li>Release new D-View Modu with DES-3552P</li> </ol>	ule for DES-3552P ule for DES-3528/28DC/28P/52 to support stacking
	ACL.mib	<ol> <li>Support VLAN-based ACL</li> <li>Support IPv6-based ACL for TCP/UDP protocols</li> <li>Support up to 14 ACL profiles and 1792 ACL rules per system</li> </ol>
	ARPSpoofingPrevention.mib	Support ARP Spoofing Attack Prevention feature
	Auth.mib	<ol> <li>Support the display of 802.1X Host-based Access Control entries</li> <li>Support Authentication Database Failover feature</li> <li>Support RADIUS Authorization feature that accepts the assignment of VLAN and QoS values dispatched from RADIUS server after successful authentication with RADIUS</li> </ol>
	BPDUProtection.mib	Add BPDU Attack Protection supports in WEB and MIB
	CableDiag.mib	Support Cable Diagnostics feature
	DHCPRelay.mib	Support DHCP relay option 82 with group ID feature      Support DHCP relay option (0, (1))
	DHCPServer.mib	<ol><li>Support DHCP relay option 60, 61</li><li>Support DHCP Server feature</li></ol>
v2 00 B022	Equipment.mib	Support the sending of trap and log when the
v2.00.B033	Equipment.inib	switch temperature goes over 80 Degrees or downs under 75 Degrees
	Filtering.mib	Support L3 Control Packet Filtering feature
	Genmgmt.mib	<ol> <li>Support SNMP trap notification when failing to access flash file system</li> <li>When using SNMP to command the switch to download a firmware file, send a trap while the firmware upgrade finishes</li> </ol>
	IPMacBind.mib	Support IMPB v3.5 configurable threshold number for illegitimate entries that can be recorded in the FDB
	Jwac.mib	<ol> <li>Support JWAC update server state</li> <li>Support Authentication Database Failover feature</li> <li>Support RADIUS Authorization feature that accepts the assignment of VLAN and QoS values dispatched from RADIUS server after successful authentication with RADIUS</li> </ol>
	Jwac.mib	Support Local Authorization feature that accepts the assignment of VLAN value from local database after successful authentication with local database





IzmgmtDES3528b.mib,   IzmgmtDES3528b.mib   Izmgm			
IzmgmtDES3528dc.mib,   IzmgmtDES3528p.mib,   IzmgmtDES3528p.mib,   IzmgmtDES3528p.mib,   IzmgmtDES3528b.mib,   IzmgmtDES3528m.mib,   IzmgmtDES3528b.mib,   IzmgmtDES3528b.mib,   IzmgmtDES3528b.mib,   IzmgmtDES3528p.mib,   IzmgmtDES3528p.mib,   IzmgmtDES3528p.mib,   IzmgmtDES3528p.mib,   IzmgmtDES3528p.mib,   IzmgmtDES3552.mib   IzmgmtDES3528p.mib,		I2mgmtDES3528p.mib,	and 802.1d destination address formats for the
L3mgmtDES3528p.mib, L3mgmtDES3528p.mib, L3mgmtDES3529p.mib L3mgmtDES3552.mib  mba.mib  mba.mib  1. Support DNS relay feature 1. Support configurable aging time, hold-down time and port-based access control for MAC-based Access Control (MAC) 2. Support Authentication Database Failover feature for MAC 3. Support RADIUS Authorization feature that accepts the assignment of VLAN and QoS values dispatched from RADIUS server after successful authentication with RADIUS 4. Support Local Authorization feature that accepts the assignment of VLAN value from local database after successful authentication with local database  V2.00.B033  V2.00.B033  V2.00.B033  V2.00.B034  WastFilter.mib  MastFilter.mib  MastSnooping.mib; McastSnooping.mib; McastVLAN.mib PoE.mib QinQ.mib QinQ.mib Support Imited IP Multicast profile per VLAN (IPV4 only) Use McastSnooping.mib and McastVLAN.mib to replace the multicast features from L2mgmt.mib Support Time-based PoE feature  Support advanced QinQ functions that allow the insertion of customer VLAN tag and the configuration of inner TPID  Qos.mib 1. Support configurable default 802.1p priority on each port. 2. Scheduling mechanisms (strict or WRR) can be configured on a per port basis. (QoS related features have been removed from L2mgmt.mib)  RSPAN.mib Support RSPAN feature Support sFlow feature Support the configuration of SSH port to any desired port number SubnetVLAN.mib		I2mgmtDES3528dc.mib, I2mgmtDES3528p.mib, I2mgmtDES3552.mib,	2. Support DHCP Local relay feature
mba.mib  1. Support configurable aging time, hold-down time and port-based access control for MAC-based Access Control (MAC) 2. Support Authentication Database Failover feature for MAC 3. Support RADIUS Authorization feature that accepts the assignment of VLAN and QoS values dispatched from RADIUS server after successful authentication with RADIUS 4. Support Local Authorization feature that accepts the assignment of VLAN value from local database after successful authentication with local database after successful authentication with local database  1. Support the configuration of maximum allowed multicast groups (IPv4 only) 2. Support Limited IP Multicast profile per VLAN (IPv4 only) McastSnooping.mib; McastVLAN.mib PoE.mib QinQ.mib Support advanced OinQ functions that allow the insertion of customer VLAN tag and the configuration of inner TPID Qos.mib 1. Support configurable default 802.1p priority on each port. 2. Scheduling mechanisms (strict or WRR) can be configured on a per port basis. (QoS related features have been removed from L2mgmt.mib) RSPAN.mib Support RSPAN feature SHON.mib Support sFlow feature SUH, Mary Can be configuration of SSH port to any desired port number SubnetVLAN.mib Support subnet-based VLAN feature		L3mgmtDES3528dc.mib, L3mgmtDES3528p.mib,	aging time to 30 sec. ARP entry's aging time can remain unaffected when being accessed by switch's internal process
McastFilter.mib  multicast groups (IPv4 only)  2. Support Limited IP Multicast profile per VLAN (IPv4 only)  McastSnooping.mib; Use McastSnooping.mib and McastVLAN.mib to replace the multicast features from L2mgmt.mib  PoE.mib  Support Time-based PoE feature  QinQ.mib  Support advanced QinQ functions that allow the insertion of customer VLAN tag and the configuration of inner TPID  Qos.mib  1. Support configurable default 802.1p priority on each port.  2. Scheduling mechanisms (strict or WRR) can be configured on a per port basis. (QoS related features have been removed from L2mgmt.mib)  RSPAN.mib  Support RSPAN feature  SFlow.mib  Support sFlow feature  SSH.mib  Support the configuration of SSH port to any desired port number  SubnetVLAN.mib  Support subnet-based VLAN feature	v2.00.B033	mba.mib	<ol> <li>Support configurable aging time, hold-down time and port-based access control for MAC-based Access Control (MAC)</li> <li>Support Authentication Database Failover feature for MAC</li> <li>Support RADIUS Authorization feature that accepts the assignment of VLAN and QoS values dispatched from RADIUS server after successful authentication with RADIUS</li> <li>Support Local Authorization feature that accepts the assignment of VLAN value from local database after successful authentication</li> </ol>
McastVLAN.mib replace the multicast features from L2mgmt.mib PoE.mib Support Time-based PoE feature QinQ.mib Support advanced QinQ functions that allow the insertion of customer VLAN tag and the configuration of inner TPID  Qos.mib 1. Support configurable default 802.1p priority on each port. 2. Scheduling mechanisms (strict or WRR) can be configured on a per port basis. (QoS related features have been removed from L2mgmt.mib)  RSPAN.mib Support RSPAN feature  SFlow.mib Support sFlow feature  SSH.mib Support the configuration of SSH port to any desired port number  SubnetVLAN.mib Support subnet-based VLAN feature		McastFilter.mib	multicast groups (IPv4 only) 2. Support Limited IP Multicast profile per VLAN
QinQ.mib  Support advanced QinQ functions that allow the insertion of customer VLAN tag and the configuration of inner TPID  Qos.mib  1. Support configurable default 802.1p priority on each port. 2. Scheduling mechanisms (strict or WRR) can be configured on a per port basis. (QoS related features have been removed from L2mgmt.mib)  RSPAN.mib  Support RSPAN feature  SFlow.mib  Support sFlow feature  SSH.mib  Support the configuration of SSH port to any desired port number  SubnetVLAN.mib  Support subnet-based VLAN feature			
insertion of customer VLAN tag and the configuration of inner TPID  Qos.mib  1. Support configurable default 802.1p priority on each port. 2. Scheduling mechanisms (strict or WRR) can be configured on a per port basis. (QoS related features have been removed from L2mgmt.mib)  RSPAN.mib  Support RSPAN feature  SFlow.mib  Support sFlow feature  SSH.mib  Support the configuration of SSH port to any desired port number  SubnetVLAN.mib  Support subnet-based VLAN feature		PoE.mib	Support Time-based PoE feature
each port.  2. Scheduling mechanisms (strict or WRR) can be configured on a per port basis.  (QoS related features have been removed from L2mgmt.mib)  RSPAN.mib  Support RSPAN feature  SFlow.mib  Support sFlow feature  SSH.mib  Support the configuration of SSH port to any desired port number  SubnetVLAN.mib  Support subnet-based VLAN feature		QinQ.mib	insertion of customer VLAN tag and the
sFlow.mib  Support sFlow feature  SSH.mib  Support the configuration of SSH port to any desired port number  SubnetVLAN.mib  Support subnet-based VLAN feature		Qos.mib	<ul><li>each port.</li><li>2. Scheduling mechanisms (strict or WRR) can be configured on a per port basis.</li><li>(QoS related features have been removed from</li></ul>
sFlow.mib Support sFlow feature SSH.mib Support the configuration of SSH port to any desired port number SubnetVLAN.mib Support subnet-based VLAN feature		RSPAN.mib	Support RSPAN feature
SSH.mib Support the configuration of SSH port to any desired port number SubnetVLAN.mib Support subnet-based VLAN feature			
· ·			Support the configuration of SSH port to any
VoiceVLAN.mib Support Voice VLAN feature		SubnetVLAN.mib	Support subnet-based VLAN feature
		VoiceVLAN.mib	Support Voice VLAN feature





# **D-Link**<sup>®</sup>

v2.00.B033	WAC.mib	<ol> <li>Support port-based access control for WAC</li> <li>Support Authentication Database Failover feature for WAC</li> <li>Support RADIUS Authorization feature that accepts the assignment of VLAN and QoS values dispatched from RADIUS server after successful authentication with RADIUS</li> <li>Support Local Authorization feature that accepts the assignment of VLAN value from local database after successful authentication with local database</li> </ol>	
	MSTP.mib	Add MSTP conformance to IEEE 802.1Q-2005 standard	
	HCNUM-TC.mib; RFC 1850.mib	Add HCNUM-TC.mib and RFC 1850.mib for loading L3mgmt.mib	
	ie8023ah.mib	Support 802.3ah OAM feature	
	RFC4188.mib	Use RFC4188.mib to replace RFC1493.mib	
v1.03.B013	IPMacBind.mib	<ol> <li>Modify the variable binding of the trap of IP-MAC-Port Binding</li> <li>Modify the value of swIpMacBindingACLMode: "enable" to "enabled", "disable" to "disabled".</li> </ol>	
	I2mgmtDES3528.mib I2mgmtDES3528dc.mib I2mgmtDES3528p.mib I2mgmtDES3552.mib	<ol> <li>Support DHCP Local Relay</li> <li>Support PPPoE Circuit-ID Tag Insertion</li> </ol>	
v1.01.B035	None		
v1.01.B030	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. The switch will transfer the old commands in configuration files automatically to new style when applying the configuration files as running configuration. If there are old parameters which exceed the range of the new command, switch will use default value instead.

Firmware Version	Changes	
10131011	config stacking mode     changes to     config stacking_mode	
v2.60.017	<ol> <li>config bpdu_protection ports mode [drop   block   disable]}     changes to     config bpdu_protection ports mode [drop   block   shutdown]}</li> </ol>	
	3. download [firmware_fromTFTP <path_filename 64=""> <path_filename 64=""> <path_filename 64=""> <path_filename 64=""> <path_filename 64=""> <path_filename 64=""> src_file <path_filename 64=""> src_file <path_filename 64=""> src_file <path_filename 64=""> ]  Note: From v2.60 onward, the src_file parameter is added. This improvement is to avoid potential command parsing problem. If you have upgraded the firmware to v2.60 or onward, and are using script to manipulate firmware or</path_filename></path_filename></path_filename></path_filename></path_filename></path_filename></path_filename></path_filename></path_filename>	
	<ul> <li>config file, please do not forget to add this parameter to the script.</li> <li>delete igmp_snooping multicast_vlan_group_profile [<pre>profile_name 1-32&gt;   all ]</pre></li> <li>changes to delete igmp_snooping multicast_vlan_group_profile [profile_name <pre>profile_name 1-32&gt;   all ]</pre></li> </ul>	
	5. delete mld_snooping multicast_vlan_group_profile [ <pre>rofile_name 1-32&gt;      all]     changes to     delete mld_snooping multicast_vlan_group_profile [profile_name     <pre>    <pre></pre></pre></pre>	
	6. config voice_vlan trap_log [enable disable] changes to config voice_vlan log state[enable disable]	
	7. show local_route [ipv4 ipv6] changes to show local_route	
	<ol> <li>config traffic control time_interval <value 5-30="">}     changes to     config traffic control time_interval <sec 5-600="">}</sec></value></li> </ol>	
	9. config mac_based_access_control ports [ <portlist>   all] { state [enable   disable]  mode [port_based   host_based]  aging_time [infinite   <min1-1440>]   block_time [infinite   <sec 1-300="">]   max_users [<value 1-1000="">   no_limit]}(1) changes to</value></sec></min1-1440></portlist>	



config mac\_based\_access\_control ports [<portlist> | all] { state [enable | disable]| aging\_time [infinite|<min 1-1440>]| block\_time <sec 0-300> |max\_users [<value 1-1000> | no\_limit]}(1) 10. config jwac ports ... block\_time [<sec 0-300>] | auth\_mode [host based | port\_based]} changes to config jwac ports ... block\_time [<sec 0-300>]} 11. Remove following command config wac auth\_failover [enable | disable] config wac authorization network {radius [enable | disable] | local [enable | v2.60.017 disable]} config jwac auth\_failover [enable | disable] config 802.1x auth\_mode [port\_based | mac\_based] config 802.1x auth\_failover [enable | disable] config 802.1x authorization network radius [enable | disable] enable authorization network enable authorization attributes v2.01.B042 None 1. Change the command "config dhcp pool dns\_server\_address" to "config dhcp pool dns\_server" 2. Change the command "show dhcp\_binding" to "show dhcp binding" 3. Change the command "clear dhcp\_binding " to "clear dhcp binding " 4. Change the command "delete jwac host" to "clear jwac auth\_state" 5. Change the command "Show jwac host" to "show jwac auth\_state ports" 6. Change the command "show mac\_based\_access\_control auth\_mac " to "show mac\_based\_access\_control auth\_state ports" 7. Change the command "delete jwac host" to "clear jwac auth\_state" 8. Change the command "Show jwac host" to "show jwac auth\_state ports" 9. Change the command "config igmp\_snooping vlan" to "config igmp\_snooping" with following parameter changes: Remove parameters: <vlan\_name 32> | all] {host\_timeout <sec</li> 1-16711450> | router\_timeout <sec 1-16711450> | leave\_timer <sec v2.00.B033 1-16711450> | state [enable | disable]} Add Paramteres: <vlan\_name 32> | vlanid <vlanid\_list> | all] { state [enable|disable] | fast\_leave [enable|disable] | report\_suppression [enable | disable]} 10. Modify "config igmp\_snooping multicast\_vlan\_group" command's parameters: Remove parameters: <vlan\_name 32> [ add <mcast\_address\_list> | delete [<mcast\_address\_list> | delete\_all]] Add Paramteres: <vlan\_name 32> [add | delete] profile\_name< profile\_name 1-32>] 11. Modify "config max\_mcast\_group" command's parameters Remove parameters: <portlist> max\_group [<value 1-256> | infinite] ◆ Add Paramteres: <portlist>|vlanid <vidlist>] {max\_group [<value] 1-1024>|infinite]| action [drop | replace]}





v1.03.B013	None
v1.01.B035	None
v1.01.B030	First release





# **Problem Fixed:**

Firmware Version	Problems Fixed
v2.60.017	<ol> <li>DHCPv6 packet cannot be filtered by ACL.</li> <li>When relaying the DHCP request across two or more DES-3528/52, and all these switches are enabled with DHCP relay, clients cannot get the IP correctly. (DRU20100402000005)</li> <li>The status of MAC address in FDB will be changed from Permanent to UnBlockByMBA after the host is authenticated by MAC. While it shouldn't be changed.</li> <li>Switch may get into exception mode when running over 5 hours with JWAC concurrent users always over 120. (DI20091005000014)</li> <li>Sometimes the status of authenticated JWAC clients will be back to "JWAC_Authing" if the clients are some particular HP models with Vista OS. (DI20100324000007)</li> <li>Port list information cannot be saved in configuration file for the command: "config address_binding ip_mac ports <portlist> state enable ipv6" (DRU20100526000002)</portlist></li> <li>The drop packet counter will increase when receiving ICMPv6 packet.</li> <li>Configuration cannot be saved via Web UI when using Linux + Firefox 3.5.9. (DRU20100519000002)</li> <li>When 802.3x flow control is enabled, the switch does not count dropped packets. (DUSA20100622000001)</li> <li>It is required to create an account 'enable' when using the command "enable admin". (DEUR20100705000008)</li> </ol>
v2.01.B042	<ol> <li>IMPB ARP mode can not be set properly by D-View 6.0 with E2ES plug-in and there is no warning message returning to D-View 6 (DT20090604000001)</li> <li>Sometimes the switch can not be reset or the config can not be downloaded via WEB UI (DI20091029000008) (DI20091102000017)</li> <li>When backup master taking over the job of stacking master, the LACP channel's MAC address changes to the backup master's address and LACP takes 5~7 seconds to recover. (DI20090818000003)</li> <li>When creating two LACP groups and making the port of the LACP group ID 2 link down, the system interface goes down. (DI20090828000019)</li> <li>After manipulating VLAN settings and then resetting the switch configuration, the system interface goes down and pops up invalid messages. (DI20090901000003)</li> <li>When jwac udp_filtering is disabled, DHCP packets still can not pass through the switch. (DI20090731000013)</li> <li>When enabling LBD function and MAC-based Access Control with RADIUS at the same time, LBD will fail. (DI20090728000008)</li> <li>JWAC function will fail if client comes from tagged port. (DI20090710000006)</li> <li>QinQ and ISM-VLAN are not designed to be activated at the same time. However they can be enabled at the same time. (DI20090529000010)</li> <li>When using a particular command to create ACL, the switch will pop up the message "The profile name already exist.". but this profile name actually does not exist.</li> <li>All packets to the management interface was counted as 'dropped' (DI20090625000019)2 OIDs for port security function do not allowed to be set simultaneously, which causes the following command failed: snmpset -c private -v 2c 10.77.0.126         <ol> <li>3.6.1.2.1.17.7.1.3.1.1.3.141.0.0.0.0.0.22.0 x 80000000000000000000000000000000000</li></ol></li></ol>



v2.01.B042	<ul> <li>13. Client can not get IP via the switch's DHCP relay function if the client resides on a VLAN that does not have an IP interface and system interface does not link up (DI20090427000014)</li> <li>14. Default gateway configuration loses after switch rebooting. (DI20090713000009)</li> </ul>
v2.00.B033	<ol> <li>The switch will enter exception mode when opening a SSH login session to the switch using Open SSH 5.1. (DI20090317000025)</li> <li>The switch doesn't support the automatic assignment of ACL ID when users want to create an ACL rule through SNMP. (DI20090318000013)</li> <li>The switch's auto configuration function will fail when DHCP and TFTP servers are located on different computer devices. (DI20090331000006)</li> <li>In a Spanning-tree enabled network environment, no matter which switch port goes down and results in the STP topology change, the generated log message always indicates that the change comes from switch port1 as "Topology changed (Instance:0, port:1)". (DI20090403000010)</li> <li>The switch does not log user out even when "Idle Time" is set in JWAC function (i.e. one minute) and the user session has been idled for more than the specified idle time. (DI20090409000007)</li> </ol>
v1.03.B013	<ol> <li>When the maximum number of DHCP snooping entries is configured, and the status of a DHCP snooping entry changes from 'inactive' to 'active' (eg. The corresponding port becomes link-up again), this entry will not be confined by the configured maximum number. (DI20081028000003)</li> <li>If a WAC client's IP address belongs to the trusted host list, WAC authentication window does not pop up on that client. (DT20081114000001)</li> <li>The ISM-VLAN function does not forward multicast traffic to a client if this client sends the IGMP V3 membership report to join the multicast group. (DEUR20081105000004)</li> <li>When Q-in-Q is not applied on Management VLAN, but other VLANs, traffic from Management VLAN will be double tagged at NNI port. (DI20081208000010)</li> <li>The switch will enter exception mode if a client tries to do WAC authentication and executes MSN 8.5 to login in the same time. (DT20081201000001)</li> <li>The switch does not display SIM topology correctly on FireFox 3.01 and JAVA 1.60_11B03. (DI20081218000018)</li> <li>The switch can not be managed by SIM when DES-3528 acts as the SIM member and DES-3526 as the SIM commander. (DI200811210000011)</li> <li>When a client connects to the switch, uses FTP to download data via PPPoE connection, the FTP session disconnects after running for 1 ~ 2 minutes. (DI20090111000004)</li> </ol>
v1.01.B035	1. The Bandwidth Control and ACL Flow Meter (flow-based bandwidth control) are inaccurate at the 1st second of traffic transmission. The allowed traffic bandwidth is around double times to the configured value. (Known Issue of 1.01.B030)
v1 01 D020	First rologeo

v1.01.B030 First release

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





## **Known Issues:**

Firman	Tanana (	Modernood
Firmware Version	Issues	Workaround
V2.60.017	<ol> <li>By default, R2.60 supports only 12 ACL profile and 1536 rules which is less than R2.01 (14 profiles, 1792 rules). Some ACL setting in previous configuration file may lose after firmware upgrade.</li> </ol>	<ol> <li>Disable inter-VLAN routing feature to gain full 14 ACL profiles and 1792 rules support.</li> <li>Make sure the current ACL profile is under 12 when re-activating the inter-VLAN routing function.</li> </ol>
	<ol><li>The firmware version in boot up page will show "v2.60017"</li></ol>	None
v2.01.B042	None	None
	<ol> <li>The web interface does not support user logout and automatic logout when using Apple's Safari web browser.</li> </ol>	None
v2.00.B033	2. The web interface will generate error message when configuring CFM loopback function through it. However it is working fine when configuring using CLI.	Upgrade to v2.60.017 or above.
v1.03.B013	<ol> <li>Per port mapping of 802.1p priority and class is not supported when packets flowing between block 1 (port 1~24/51/52) and block 2 (port 25~50), and across devices in the same physical stack. When this happens the switch will use default mapping instead of the configured class mapping.</li> <li>Flow control is not supported for packets flowing between block 1 (port 1~24/51/52) and block 2 (port 25~50), and across devices in the same physical stack.</li> <li>Traffic flowing between block 1 and block 2 does not reach line rate (max. 5% packet loss) when the packet size is between 64~97 bytes.</li> <li>The CPU handles control signals and the utilization will be 11~13% with default settings.</li> <li>When mirroring egress untagged packets in line speed, the mirrored packets can not reach line speed.</li> </ol>	None
v1.01.B035	None	None
v1.01.B030	The Bandwidth Control and ACL Flow Meter (flow-based bandwidth control) are inaccurate at the 1st second of traffic transmission. The allowed traffic bandwidth is around double times to the configured value. Starting from 2nd second the allowed bandwidth becomes normal.	Upgrade to v1.01.B035 or above.





## **Related Documentation:**

- DES-3528/52 Series User Manual
- DES-3528/52 Series CLI Manual

