6 Command Line Interface

The D-Link SmartPro Switch allows a computer or terminal to perform some basic monitoring and configuration tasks by using the Command Line Interface (CLI) via TELNET protocol.

To connect a switch via TELNET:

1. Make sure the network connection between the switch and PC is active.
2. To connect, launch any terminal software like ***HyperTerminal*** in Microsoft Windows, or just use the command prompt by typing the command *telnet* followed by the switch IP address, eg. *telnet 10.90.90.90*.
3. The logon prompt will appear.

Logging on to the Command Line Interface:

Enter your User Name and Password to log in. The default user name and password is **admin**. Note that the user name and password are case-sensitive. Press **Enter** in both the Username and Password fields. The command prompt will appear as shown below (**DGS-1500-28>):**

```
DGS-1500-28 login: admin

Password:


DGS-1500-28>
```

Figure 6.1 – Command Prompt

The user session is automatically terminated if idle for the login timeout period. The default login timeout period is 5 minutes. To change the login timeout session, please refer to chapter 5.

CLI Commands:

The Basic Switch commands in the Command Line Interface (CLI) are listed (along with the appropriate parameters) in the following table.

Command	Parameter
?	
download	**{ firmware_fromTFTP tftp://ip-address/filename | cfg_fromTFTP tftp://ip-address/filename}**
upload	**{ firmware_toTFTP tftp://ip-address/filename | cfg_toTFTP tftp://ip-address/filename }**
config ipif system	**{ ipaddress <ip-address> <subnet-mask> gateway <gw-address> | dhcp }**
logout	
ping	**<ip_addr>**
reboot	
reset **config**	
show ipif	
show switch	
config account admin	**<passwd>**

Command	Parameter
password	
save	
debug info	

Each command is listed in detail, as follows:

?	
Purpose	To display a list of commands.
Syntax	**?**
Description	The **?** command displays a list of commands of the switch.
Parameters	None.
Restrictions	None.

Example usage:

To display a list of commands of the switch:

```
DGS-1500-28> ?
USEREXEC commands :
  config account admin password <passwd>
  config ipif System { ipaddress <ip-address> <subnet-mask> gateway
<gw-address> | dhcp }
  debug info
  download { firmware_fromTFTP tftp://ip-address/filename | cfg_fromTFTP
tftp://ip-address/filename }
  logout
  ping <ip_addr>
  reboot
  reset config
  save
  show ipif
  show switch
  upload { firmware_toTFTP tftp://ip-address/filename | cfg_toTFTP
tftp://ip-address/filename }
DGS-1500-28>
```

download	
Purpose	To download and install a firmware, boot, or switch configuration file from a TFTP server.
Syntax	**download { firmware_fromTFTP tftp://ip-address/filename | cfg_fromTFTP tftp://ip-address/filename}**
Description	The **download** command downloads a firmware, boot, or switch configuration file from a TFTP server.

Parameters	*firmware_fromTFTP* − Download and install new firmware on the Switch from a TFTP server. *cfg_fromTFTP* − Download a switch configuration file from a TFTP server. *tftp://ip-address/* − The IP address of the TFTP server. *filename* − The filename of the firmware or switch configuration file on the TFTP server. You need to specify the DOS path if the file is not at the root directory of the TFTP server.
Restrictions	None.

Example usage:

To download a firmware file:

```
DGS-1500-28> download firmware_fromTFTP 1.1.1.23 1\dgs_1500-10032.ros

01–Jan–2000 01:19:48 %COPY–I–FILECPY: Files Copy – source URL tftp://1.1.1.23 /1\
dgs_1500—10032.ros destination URL Unit all flash://image
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
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!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!01–Jan–2000 01:22:49 %COPY–W–TRAP:
The copy operation was completed successfully
!
3920460 bytes copied in 00:03:01 [hh:mm:ss]


DGS-1500-28>
```

Note: Switch will reboot after restore and all current configurations will be lost.

upload

Purpose	To upload the firmware file or a Switch configuration file to a TFTP server.
Syntax	**upload { firmware_toTFTP tftp://ip-address/filename | cfg_toTFTP tftp://ip-address/filename }**
Description	The **upload** command uploads the Switch's current settings to a

	TFTP server.
Parameters	*firmware_toTFTP* − Upload the firmware on the Switch from a TFTP server. *cfg_toTFTP* − Specifies that the Switch's current settings will be uploaded to the TFTP server. *tftp://ip-address/* − The IP address of the TFTP server. *filename* − The filename of the firmware or switch configuration file on the TFTP server. You need to specify the DOS path if the file is not at the root directory of the TFTP server.
Restrictions	None.

Example usage:

To upload a firmware file:

```
DGS-1500-28>upload firmware_toTFTP 1.1.1.23 1\running—config

01–Jan–2000 01:26:11 %COPY–I–FILECPY: Files Copy – source URL running–config destination URL tftp://1.1.1.23/1\running–config

…..01–Jan–2000 01:26:16 %COPY–W–TRAP: The copy operation was completed success fully

!

158 bytes copied in 00:00:05 [hh:mm:ss]

DGS-1500-28>
```

config ipif system

Purpose	To configure the System IP interface.
Syntax	**config ipif system { ipaddress <ip-address> <subnet-mask> gateway <gw-address> | dhcp }**
Description	The **config ipif system** command configures the System IP interface on the Switch.
Parameters	*ipaddress <ip-address> <subnet-mask>* − The IP address and subnet mask to be created. Users need to specify the address and mask information using the traditional format (for example,10.1.2.3/255.0.0.0) *gateway <gw-address>* − The IP address of the router or gateway. *dhcp* − Allows the selection of the DHCP protocol for the assignment of an IP address to the Switch's System IP interface.
Restrictions	None.

Example usage:

To configure the IP interface System:

```
DGS-1500-28> config ipif System ipaddress 10.48.74.122/8


Success.

DGS-1500-28>
```

logout	
Purpose	To log out a user from the Switch's console.
Syntax	**logout**
Description	The **logout** command terminates the current user's session on the Switch's console.
Parameters	None.
Restrictions	None.

Example usage:

To terminate the current user's console session:

```
DGS-1500-28> logout
```

NOTE: Save your configuration changes before logging out.

ping	
Purpose	To test the connectivity between network devices.
Syntax	**<ipaddr>**
Description	The **ping** command checks if another IP address is reachable on the network. You can ping the IP address connected to through the managed VLAN (VLAN 1 by default), as long as there is a physical path between the switch and the target IP equipment. By default, Switch sends five pings to the target IP.
Parameters	*<ipaddr>* - The IP address of the host.
Restrictions	None.

Example usage:

To ping the IP address 10.90.90.91:

```
DGS-1500-28> ping 10.90.90.91

Reply Received From :10.90.90.91, TimeTaken : 20 msecs
Reply Received From :10.90.90.91, TimeTaken : 20 msecs
Reply Received From :10.90.90.91, TimeTaken : 20 msecs


--- 10.90.90.91 Ping Statistics ---
3 Packets Transmitted, 3 Packets Received, 0% Packets Loss

DGS-1500-28>
```

reboot	
Purpose	To reboot the Switch. If the Switch is a member of a stack, it may be rebooted individually, without affecting the other members of the stack.
Syntax	**reboot**

Description	The **reboot command** reboots the system. All network connections are terminated and the boot code executes.
Parameters	None.
Restrictions	None.

Example usage:

To restart the Switch:

```
DGS-1500-28> reboot

% Device will reboot, please wait a few minutes to re-login.

DGS-1500-28>
```

reset config

Purpose	To reset the Switch to the factory default settings.
Syntax	**reset config**
Description	All configurations will be reset to the default settings.
Parameters	None.
Restrictions	None.

Example usage:

To restore all of the Switch's parameters to their default values:

```
DGS-1500-28> reset config

% Device will reboot after reset configuration successfully.


DGS-1500-28>
```

show ipif

Purpose	To display the configuration of an IP interface on the Switch.
Syntax	**show ipif**
Description	The **show ipif command** displays the current IP address of the switch.
Parameters	None.
Restrictions	None.

Example usage:

To display IP interface settings:

```
DGS-1500-28> show ipif

IP Setting Mode          : Static
IP Address               : 172.17.5.214
Subnet Mask              : 255.255.255.0
Default Gateway          : 172.17.5.254
```

```
DGS-1500-28>
```

show switch

Purpose	To display information about the Switch.
Syntax	**show switch**
Description	The **show switch command** displays the status of the switch.
Parameters	None.
Restrictions	None.

Example usage:

To display the switch information:

```
DGS-1500-28> show switch
System Name                    :
System Contact                 :
System Location                :
System up time                 : 0 days, 6 hrs, 32 min, 17
secs
System Time                    : 01/01/2009 06:32:19
System hardware version        : A1
System firmware version        : 1.00.001
System boot version            : 1.00.000
System Protocol version        : 2.001.004
System serial number           : 1MB1733K0000A
MAC Address                    : 00-18-E7-48-85-50


DGS-1500-28>
```

config account admin password

Purpose	To display the configuration of an IP interface on the Switch.
Syntax	**config account admin password**
Description	The **config account admin password command** sets the administrator password.
Parameters	*<passwd>* − The new password of the administrator.
Restrictions	None.

Example usage:

To configure the account admin password:

```
DGS-1500-28> config account admin password 1234

DGS-1500-28>
```

save	
Purpose	To save changes in the Switch's configuration to non-volatile RAM.
Syntax	**save**
Description	The **save command** saves the configuration changes to the memory.
Parameters	None.
Restrictions	None.

Example usage:

To save the Switch's current configuration to non-volatile RAM:

```
DGS-1500-28> save
Building configuration ...
[OK]


DGS-1500-28>
```

debug info	
Purpose	To display the ARP table and MAC FDB information of the Switch.
Syntax	**debug info**
Description	The **debut info command** displays the ARP table and MAC FDB of the Switch.
Parameters	None.
Restrictions	None.

Example usage:

To display the ARP table and MAC FDB information of the Switch:

```
DGS-1500-28> debug info
% segmentation fault log file:


File doesn't exist !!!
% ARP table :


Address          Hardware Address     Type     Interface     Mapping
------- ------   ----------- ----------------  ------  -------------  -------------
10.90.90.90      00:18:8b:bf:75:30     ARPA    vlan1         Static
10.90.90.98      00:19:5b:14:3d:c4     ARPA    vlan1         Dynamic
10.255.255.255   ff:ff:ff:ff:ff:ff     ARPA    vlan1         Static

% MAC table :


Vlan    Mac Address          Type         Ports
```

```
------      --------------------        --------        -------
1           00:00:00:00:00:26     Learnt     Gi0/7

Total Mac Addresses displayed: 1

DGS-1500-28>
```