Silex Technology America

CONSOLE COMMANDS

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REVISION HISTORY

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1.17	2009.09.03	L. Aydelotte	Added IDLECONN, DISCONN, ROAMHYST, WPA2PREAUTH commands
1.18	2010.10.13	L. Aydelotte	Added DHCPWARM and DHCPCLASS commands.
1.19	2011.04.29	L. Aydelotte	Added NW DIVERsity, RETRY, and SPANDELAY commands

Table of Contents

1 Introduction and command console access information

silex technology America servers support a sophisticated command-line oriented console for configuration and management. The console includes some features that are not available through other configuration methods. The console can be accessed via TELNET, the server's serial port (if applicable), or through the ADMIN web page using the web browser interface. The general configuration procedure is the same regardless of which method is used. This document describes the console commands available from the command console for SILEX TECHNOLOGY AMERICA servers. All commands may not be applicable towards your product.

The general configuration procedure is the same, regardless of which method is used.

1.1 Telnet Command Console Access

To connect to the print server using TELNET on UNIX, Windows, or most other TCP/IP systems, type the following command at the command prompt:

```
TELNET ipaddress
```

Where ipaddress is the IP address of the server. When you are connected, press RETURN or ENTER to get the "#" prompt, enter the password (ACESS is the default, it will not echo on your screen as you type), Hit `ENTER` until you get the `Local>` prompt. You are now ready to enter commands.

1.2 Serial Port Command Console Access

Attach a null modem serial cable to the DB9 serial port of the print server, and the other side to the COM port on your computer. Start a terminal emulation program (for example, HyperTerminal on Windows systems). Make sure you are connecting with the relevant COM port on from your PC and use the following settings for the connection:

```
BITS PER SECOND:        115200
DATA BITS:              8
PARITY:                 NONE
STOP BITS:              1
FLOW CONTROL:           NONE
```

Once connected, hit `ENTER` until you get a `Local>` prompt. You are now ready to enter commands.

2 Network Commands

This group of commands configures network parameters. Not all of these commands are available on all products. Availability depends on the capabilities of the network interface(s) on the product.

2.1 SH NW

Displays summary network information

sample output:

```
WiFi Mode = INFRASTRUCTURE
WiFi SSID: silex
Speed = 11
Regulatory Domain = 704
WiFi FW Ver = 1F 1.7.1
AP density = LOW
TTLS is Disabled
WEP is Disabled
Link DOWN
```

2.2 SET NW CHannel

Sets WLAN ad-hoc channel number

```
SET NW CHannel n
      n =
1,2,3,4,5,6,7,8,9,10,11,36,40,44,48,52,56,60,64,100,104,108,112,116,120,124,128,132,136,1
40,149,153,157,161,165    (default = 11, this value is ignored in Infrastructure mode)
```

NOTE: The actual channels available depends on the radio installed in the unit and the current mode of operation.

2.3 SET NW Mode

Sets WLAN mode

```
SET NW MOde   <mode>
      [Infrastructure | Ad-Hoc]  (default = Infra)
```

2.4 SH NW MODE

Shows the wireless operating mode

sample output:

```
Wifi mode = AD-HOC (802.11)
```

2.5 SET NW RAdio

Sets WLAN Radio Mode

```
SET NW RAdio   <mode>
      [ 802.11a | 802.11b-g | 802.11a-b-g]  (default = 802.11b-g)
```

2.6 SH NW RADio

Shows the selected radio mode of operation

sample output:

```
Radio mode is 802.11b
```

2.7 SET NW SPeed

Sets maximum WLAN speed

```
SET NW SPeed   n
      n = 1,2,5.5,6,9,11,12,18,24,48,54   (default = 54)
```

2.8 SH NW SPEED

Show the maximum wireless data speed in megabits per second

sample output:

```
Speed = 11
```

2.9 SET NW SSid

Sets WLAN SSID

```
SET NW SSid   <name>
      User defined    (default = printer)
```

2.10 CL NW Ssid

Clears the SSID value so the server will connect to any AP.

```
CL NW SSid
```

2.11 SET NW BSsid

Sets WLAN BSSID (connect to a specific access point's mac address)

```
SET NW BSsid  <value>
      User defined (MAC Address)
```

2.12 CL NW BSsid

Clears the BSSID value so the server uses just SSID and not a specific AP.

```
CL NW BSsid
```

2.13 SET NW RTS

Sets WLAN RTS threshold

```
SET NW RTS     n
      n = 1-3000   (default = 2432)
```

2.14 SH NW RTS

Shows the configured wireless RTS threshold

sample output:

```
Wifi RTS Threshold = 2432
```

2.15 SET NW APDEN

Sets WLAN Access Point Density

```
SET NW APDEN    [LOW | MED | HI]
      (default = LOW)
```

2.16 SH NW APDEN

Shows the access point density

sample output:

```
AP Density = Low
```

2.17 SH NW STATS

Show the network I/O statistics

sample output:

```
WiFi statistics:
TX Unicast frames: 0
TX Multicast frames: 0
TX Fragments: 0
TX Unicast octets: 0
TX Multicast octets: 0
TX Deferred: 0
TX Single retry frames: 0
TX Multiple retry frames: 0
TX Retry limit exceeded: 0
TX Discards: 0
RX Unicast frames: 0
RX Multicast frames: 0
RX Fragments: 0
RX Unicast octets: 0
RX Multicast octets: 0
RX FCS errors: 0
RX Discards no buffer: 0
TX Discards wrong SA: 0
RX Discards WEP undecr: 0
RX Msg in msg fragments: 0
RX Msg in Bad msg fragments: 0
```

2.18 SET NW IROAM

International Roaming (802.11d)
This controls whether the radio frequencies are set based on the radio configuration, or information from the access point it connects to. Disabled means the radio defaults are used. Flexible means the access point settings are used if present, but if not the radio default is used. Strict means the access point must provide regulatory frequency information..

```
SET NW IROAM [ DISable | STRICT | FLEXible ]
      (default = FLEXIBLE)
```

2.19 SH NW IROAM

Shows what International Roaming setting is currently configured.

sample output:

```
International Roaming = Flexible
```

2.20 SET NW DFS

Dynamic Frequency Select (802.11h)
This controls whether the available radio frequencies are set based on the radio configuration, or information from the access point it connects to. Disabled means the radio defaults are used. Flexible means the access point settings are used if present, but if not the radio default is used. Strict means the access point must provide frequency control information...

```
SET NW DFS [ DISable | STRICT | FLEXible ]
      (default = DISABLED)
```

2.21 SH NW DFS

Shows what Dynamic Frequency Select is currently configured.

sample output:

```
International Roaming = Flexible
```

2.22 SET NW REGDOMain

This field displays the region of operation for which the wireless interface is intended. Note that the possible countries are pulled from the radio card and may differ depending on what card is used.

```
SET NW REGDOMain <country>
country =  "xxx", where xxx =
      "US "       US                "USI"       US_INDOOR
      "AU "       AUSTRALIA
      "AT "       AUSTRIA           "ATI"       AUSTRIA_INDOOR
      "BE "       BELGIUM           "BEI"       BELGIUM_INDOOR
      "CA "       CANADA
      "DK "       DENMARK           "DKI"       DENMARK_INDOOR
      "FI "       FINLAND,          "FII"       FINLAND_INDOOR
      "FR "       FRANCE            "FRI"       FRANCE_INDOOR
      "DE "       GERMANY           "DEI"       GERMANY_INDOOR
      "GR "       GREECE
      "HU "       HUNGARY
      "HK "       HONG_KONG
      "IS "       ICELAND           "ISI"       ICELAND_INDOOR
      "IN "       INDIA
      "IE "       IRELAND           "IEI"       IRELAND_INDOOR
      "IT "       ITALY             "ITI"       ITALY_INDOOR
      "JP "       JAPAN             "JPI"       JAPAN_INDOOR
                                    "JPO"       JAPAN_OUTDOOR
      "LU "       LUXEMBOURG        "LUI"       LUXEMBOURG_INDOOR
      "NL "       NETHERLANDS       "NLI"       NETHERLANDS_INDOOR
      "NZ "       NEW_ZEALAND
      "NO "       NORWAY            "NOI"       NORWAY_INDOOR
      "CN "       PRC
      "PT "       PORTUGAL          "PTI"       PORTUGAL_INDOOR
      "PL "       POLAND
      "SG "       SINGAPORE
      "ES "       SPAIN             "ESI"       SPAIN_INDOOR
      "SE "       SWEDEN            "SEI"       SWEDEN_INDOOR
      "CH "       SWITZERLAND       "CHI"       SWITZERLAND_INDOOR
      "TW "       TAIWAN
      "GB "       UK                "GBI"       UK_INDOOR
```

2.23 SH NW REGDOMain

Shows the region of operation for which the wireless interface is intended.

sample output:

```
Reg. Domain: US
```

2.24 SH NW SQ

Displays the current signal quality seen on a wireless network link. The Signal Quality value is a scaled value from 0 to 100 indicating the relative strength of the wireless link. The other values are hardware dependent values which vary depending on the specific radio in use. They should be used only for relative comparisons with the same unit, not for comparisons between different units as they are not calibrated in any way.

sample output:

```
Signal Quality  = 43
Signal Strength = -78
Noise Level     = -100
```

2.25 SET NW SCAN

This command allows the channels to be scanned for access points to be specified. By default, the unit will scan all available channels on each band (802.11b-g and/or 802.11a) which is enabled. With this command, the scan can be restricted so that only certain channels are scanned.

```
SET NW SCAN <channel list> [ DISable | ENable ]
      (default = all channels ENABLED)
```

2.26 SH NW SCAN

Shows which channels are currently configured to be scanned when the unit is searching for an access point.

sample output:

```
1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11
```

2.27 SET NW TXPOWER

This command allows the transmit power to be reduced. The default is to transmit at the maximum power available for the unit, but this can be reduced by the percentage defined in this command.

```
SET NW TXPOWER <0-100>
      (default = 100)
```

2.28 SH NW TXPOWER

Shows the current transmit power setting.

sample output:

```
Power: 100
```

2.29 SET NW WIRED

Sets Ethernet Speed to 10baseT, 100baseTX, or Autosense.

```
SET NW WIRED [ AUTO | 10BASE | 100BASE ]
```

2.30 SET NW IDLECONN

This command sets the wireless idle connection timer setting. If no packets are received during half the interval specified, the unit will ping the configured gateway router. If the second half of the interval expires with no packets being received, the wireless driver will be reset.

```
SET NW IDLECONN nn
```

nn is a time period in minutes. The range for nn is 0-255. If the timer value is set to zero, the timer is disabled. The factory default value is 2 minutes.

2.31 SH NW IDLECONN

This command shows the current idle connection timer setting.

```
Local> SH NW IDLECONN
 Idle connect Timer: 2
```

2.32 SET NW DISCONN

This command sets the wireless disconnected timer setting. If no connection to an AP is successfully made during the period set, the unit will perform a soft reset to completely re-initialize the unit..

```
SET NW DISCONN nn
```

nn is a time period in minutes. The range for nn is 0-255. If the timer value is set to zero, the timer is disabled. The factory default value is 5 minutes.

2.33 SH NW DISCONN

This command shows the current idle connection timer setting.

```
Local> SH NW DISCONN
 Disconnect connect Timer: 5
```

2.34 SET NW ROAMHYST

The ROAMHYST value is used to adjust the roaming threshold used by the radio. Valid values are 0-16. 0 gives no preference to the currently connected AP when making a roaming decision, 16 gives the maximum preference to the currently connected AP.

```
SET NW DISCONN nn
```

The factory default value is 16.

2.35 SH NW ROAMHYST

This command shows the roaming threshold setting.

```
Local> SH NW ROAMHYST
 Roam Hysteresis: 16
```

2.36 SET NW BGSCAN

Sets Wireless background scan interval in seconds

```
SET NW BGSCAN <seconds>
```

NOTE: This command is currently only available on the SX-560

2.37 SET NW SPANDELAY

On some products, the unit will delay starting up network protocols until a packet is received from the network or 60 seconds elapses. This is to allow for the spanning tree search that some APs perform to complete. During this search, the AP will ignore traffic from a client. If this delay is not required, this item can be used to disable this and allow the network operations to begin immediately.

```
SET NW SPANDELAY [ DISable | ENable ]
```

The default is Enabled.

2.38 SH NW SPANDELAY

Shows the state of the spanning tree delay flag

```
Local> SH NW SPANDELAY
 Spanning Tree Delay Enabled
```

2.39 SET NW DIVERSITY

For platforms that support multiple antennas, this setting controls whether antenna diversity is used or not. If disabled, only the primary antenna will be used. The default depends upon the platform.

```
SET NW DIVERSITY [ DISable | ENable ]
```

2.40 SH NW DIVERSITY

Shows the state of the antenna diversity flag

```
Local> SH NW DIVERSITY
 Diversity Disabled
```

2.41 SET NW RETRY

This parameter controls how many retries are attempted on a wireless link when an initial transmission attempt fails. This value is the number of attempts done by the wireless driver. The actual number of link attempts will usually be higher, as the radio hardware will automatically do some retries on its own. This command is not supported on all wireless platforms.

```
SET NW RETRY <retry-count>
```

The default value is 6.

2.42 SH NW RETRY

Shows the current setting of the parameter.

```
Local> SH NW Retry
 Retry Count: 6
```

3 Network Security Commands

This group of commands configures network security parameters

3.1 SET NW AUTHtype

Sets WLAN Authentication type

```
SET NW AUTHtype [OPEN |SHARED | TTLS | LEAP | PEAP | PSK]
      (default = Open System)
```

3.2 SH NW AUTH

Shows the wireless authentication type

sample output:

```
Authentication type= OPEN SYSTEM
```

3.3 SET NW ENC

Sets WLAN Encryption Mode. Supported modes are none, 64 bit WEP, 128 bit WEP, WPA (TKIP) and WPA2 (AES).

```
SET NW ENC  [DIsable | 64 | 128 | WPA | WPA2 | WPA2-WPA  ]
      (default = Disable)
```

3.4 SH NW ENC

Shows the wireless encryption mode

sample output:

```
WiFi encryption is Disabled
```

Note:

The deprecated command SH NW WEP will also display this information

3.5 SET NW KEY#

Selects WLAN WEP key entry

```
SET NW KEY#    n
      n = 1-4    (default = 1)
```

3.6 SET NW KEYVAL

Sets the currently selected WLAN WEP key entry to the hex value given.

```
SET NW KEYVAL <key>
      key=10 or 26 hex characters (default=<null>)
```

3.7 SET NW CERTCN

Sets EAP Common Name. If defined, this string is used to validate remote host certificates.

```
SET NW CERTCN   <name>
      User defined (default=<null>)
```

3.8 SH NW CERTCN

Shows the value of the first common name check string

sample output:

```
Common name 1
```

Note: the default for this string is a null (blank) string
Note: The deprecated command SH NW TTCN will also return this information.

3.9 SET NW CERTCN2

Sets second EAP Common Name. If defined, this string is used to validate remote host certificates.

```
SET NW CERTCN2   <name>
      User defined (default=<null>)
```

3.10 SH NW CERTCN2

Shows the value of the second common name check string

sample output:

```
Common name 2
```

Note: the default for this string is a null (blank) string

3.11 SET NW CERTEXP

Sets EAP Certificate Exponent value. If defined, this value is used to validate remote host certificates.

```
SET NW CERTEXP  <exponent>
      User defined    (default = 10001 Hex)
```

3.12 SH NW CERTEXP

Shows the value of the certificate exponent

sample output:

```
65537 (10001h)
```

Note: The deprecated command SH NW TTEXP will also return this information.

3.13 SET NW CERTKEY

Sets EAP Root Key. If defined, this value is used to validate remote host certificates.

```
SET NW CERTKEY  <key value>
      User defined
```

3.14 SET NW ID

Sets Authentication User ID This may include the realm, separated by a '@' character.

```
SET NW ID   <user id>
      (default = anonymous)
```

3.15 SH NW ID

Shows the value of the authentication ID (including realm, if present)

sample output:
```
anonymous@somewhere
```

Note: The default realm is a null (blank) string
Note: The deprecated command SH NW TTID will also return this information.

3.16 SET NW PW

Sets the password used for the 802.1x EAP authentication, if enabled.

```
SET NW PW   <password>
      (default = anonymous)
```

3.17 SET NW INAP

Sets EAP Inner-Authentication protocol

```
SET NW INAP   [PAP|MSCHAP_V2]
      (default = PAP)
```

3.18 SH NW INAP

Shows the selected inner authentication mode

sample output:
```
Authentication protocol = PAP
```

Note: the deprecated command SH NW TTAP will also return this information.

3.19 SET NW REALM

Sets the realm portion of the 802.1x EAP authentication ID This may also be set with the ID command.

```
SET NW REALM   <realm>
      (default = <null>)
```

3.20 SH NW REALM

Shows the realm associated with the authentication ID, if any.

sample output:
```
somewhere
```

Note: The default realm is a null (blank) string
Note: The deprecated command SH NW TTRE will also return this information.

3.21 SET NW WPAAUTO

Enable or disable WPA auto mode. If enabled, the print server will connect to a non-WPA access point if a WPA enabled access point is not available. Only valid when WPA is enabled (authentication type = TKIP).

```
SET NW WPAAUTO [ENable | DIsable]
      (default = disabled)
```

3.22 SH NW WPAAUTO

Shows the state of the WPA auto connect flag

sample output:
```
WPA-AUTO Enabled
```

3.23 SET NW WPAGROUP

Enable or disable WPA group key mode. If enabled, this allows group keys to be used for data link encryption.
```
SET NW WPAGROUP [ENABLE | DISABLE]
            (default = disabled)
```

3.24 SH NW WPAGROUP

Shows the state of the allow WPA group keys flag

sample output:
```
WPA-GROUP Disabled
```

3.25 SET NW WPAPSK

Sets the WPA PSK pass phrase or hex key. This value is only used if the authentication mode is WPA-PSK. The argument to this command is either a pass phrase of 8-63 characters, or exactly 64 hex characters representing the 256 bit PSK value.

```
SET NW WPAPSK <key>
(default = “Device Server”)
```

3.26 SET NW WPATRACE

Sets the WPA trace level. **note:** this command is for diagnostic purposes only, and should not normally be used as the trace can affect performance. A value of 0 disables the trace.

```
SET NW WPATRACE nn
      (default = 0)
```

3.27 SET NW PKPASS

Sets the password for a private key password file to be loaded via FTP. This value must be set before the key file is loaded, or the file will not be able to be decrypted properly.

```
SET NW PKPASS <passphrase>
(default = null string)
```

3.28 SET NW SSCCOMNAME

Sets the common name for a self signed certificate to be generated.
NOTE: This value is volatile, it will be lost when the unit is reset or power cycled.

```
SET NW SSCCOMNAME <common name string>
(default = MACaabbccddeeff, where aabbccddeeff is the MAC address of the unit)
```

3.29 SET NW SSCORGNAME

Sets the organizatino name for a self signed certificate to be generated.
NOTE: This value is volatile, it will be lost when the unit is reset or power cycled.

```
SET NW SSCORGNAME <organization name string>
(default = silex technology america)
```

3.30 SET NW SSCORGUNIT

Sets the organizational unit for a self signed certificate to be generated.
NOTE: This value is volatile, it will be lost when the unit is reset or power cycled.

```
SET NW SSCORGUNIT  <organizational unit string>
(default = silex)
```

3.31 SET NW SSCSTATE

Sets the state location for a self signed certificate to be generated.
NOTE: This value is volatile, it will be lost when the unit is reset or power cycled.

```
SET NW SSCSTATE <state string>
(default = UT)
```

3.32 SET NW SSCCITY

Sets the city location for a self signed certificate to be generated.
NOTE: This value is volatile, it will be lost when the unit is reset or power cycled.

```
SET NW SSCCITY <city string>
(default = Salt Lake City)
```

3.33 SET NW SSCCOUNTRY

Sets the country location for a self signed certificate to be generated.
NOTE: This value is volatile, it will be lost when the unit is reset or power cycled.

```
SET NW SSCCOUNTRY <country string>
(default = US)
```

3.34 SET NW SSCKEYSIZE

Sets the key size (in bits) for a self signed certificate to be generated. The value must be 1024 or 2048.
NOTE: This value is volatile, it will be lost when the unit is reset or power cycled.

```
SET NW SSCKEYSIZE  n
(default = 1024)
```

3.35 SET NW SSCGEN

Generate a self signed certificate. The certificate and associated private key will be stored as the active client key and certificate for this unit. Any previous private key and local certificate will be deleted by this action.

```
SET NW SSCGEN
```

4 Port Commands

4.1 Parallel Port Commands

4.1.1 SH PORT

Shows Port parameters

sample output:

```
Port     Q-Size     Type      Attributes
 *P1          0   parallel    BID ACKH NBUF
```

4.1.2 SET PORT P1 ACKH

Enable or disable pACK handshake (1284 compatible) mode. ECP and Fast Strobe mode must be disabled for compatibility mode to be used.

```
SET PORT P1 ACKH [ENABLE | DISABLE]
      (default = enable)
```

4.1.3 SET PORT P1 BIDir

Enable or disable bidirectional mode

```
SET PORT P1 BIDir [ENable | DIsable]
      (default = enable)
```

4.1.4 SET PORT P1 ECP

Enable or disable 1284 ECP mode. If enabled, this mode takes priority over compatibility (ACKH) and fast strobe (FSTB) mode.

```
SET PORT P1 ECP [ENable | DIsable]
      (default = enable)
```

4.1.5 SET PORT P1 FSTB

Enable or disable fast strobe mode. This mode handshake only with the busy line from the printer. If enabled, this mode take priority over the compatibility (ACKH) mode of operation.

```
SET PORT P1 FSTB [ENable | DIsable]
      (default = disable)
```

4.1.6 SET PORT P1 INWT

Enable or disable input wait mode. If enabled, this mode delays polling for input from the printer at the end of a job for one poll period. If disabled, the printer is polled as soon as the last byte in the job is sent to it..

```
SET PORT P1 INWT [ENable | DIsable]
      (default = disable)
```

4.1.7 SET PORT P1 NBUF [ENable | DIsable]

Enable or disable no buffer mode. If enabled, data is passed directly from the network to the printer without buffering. Depending on the network set up and application, buffering may improve performance or reduce it.

```
SET PORT P1 NBUF [ENable | DIsable]
      (default = enable)
```

4.1.8 SET PORT P1 NOINBUSY

Enable or disable noinput while busy mode. If enabled, the printer will not be polled to see if it has data to send back to the host if it is reporting busy status on the interface.

```
SET PORT P1 NOINBUSY [ENable | DIsable]
      (default = disable)
```

4.1.9 SET PORT P1 POLL

Set interval between input polls (msec). The value is meaningless if bidirectional mode is disabled.

```
SET PORT P1 POLL <nn>
      (default = 50 msec)
```

4.1.10 SET PORT P1 PSTA

Enable or disable PJL status initialization.

```
SET PORT P1 PSTA [ENable | DIsable]
      (default = disabled)
```

4.1.11 SET PORT P1 SOJBUSY

If the printer is busy when a print job is ready to start, this parameter determines how long the server waits after the printer becomes ready before starting to send data to it.

```
SET PORT P1 SOJBUSY <nn>
      (default = 100 msec)
```

4.1.12 CL PORT <port> JOB

This command aborts the currently active job on the port specified. If the remote host is still connected, any further data received will be discarded.

```
CL PORT P1 JOB
```

4.2 USB Port Commands

4.2.1 SET PORT U1 PSTA

Enable or disable PJL status initialization.

```
SET PORT U1 PSTA [ENable | DIsable]
      (default = disabled)
```

4.2.2 SET PORT U1 NBUF [ENable | DIsable]

Enable or disable no buffer mode. If enabled, data is passed directly from the network to the printer without buffering. Depending on the network set up and application, buffering may improve performance or reduce it.

```
SET PORT U1 NBUF [ENable | DIsable]
      (default = enable)
```

4.3 Serial Port Commands

4.3.1 SH PORT

Shows Port parameters

sample output:

```
Port     Q-Size     Type      Attributes
 *S1          0   serial      115200 N 8 1 XON/XOFF RS232
```

4.3.2 SET PORT

Sets Parameters for specified port. The available commands are dependent on the port type.

4.3.3 CLEAR PORT S1 JOB

This command aborts the currently active job on the port specified. If the remote host is still connected, any further data received will be discarded.

```
CL PORT S1 JOB
```

4.3.4 SET PORT S1 FLOW

Set serial port flow control to NONE, XON/XOFF, or CTS

```
SET PORT S1 FLOW <flow>
      (default = None)
```

4.3.5 SET PORT S1 PARITY

Set serial port parity to NONE, EVEN, ODD

```
SET PORT S1 Parity <parity>
      (Default = None)
```

4.3.6 SET PORT S1 SIZE

Sets the data bits on the serial port

```
SET PORT S1 Signal [7 | 8]
      (default = 8)
```

4.3.7 SET PORT S1 SPeed

Sets serial port baud rate. Options for BAUD, depending on the unit, are 300, 600, 1200, 2400, 7200, 9600, 19200, 38400, 57600, 115200, 230400, 460800 and 921600.

```
SET PORT S1 SPEED <baudrate>
      (default = 115200)
```

4.3.8 SET PORT S1 STOP

Sets serial port stop bits per character.

```
SET PORT S1 STOP [1 | 2]
      (default = 1)
```

4.3.9 SET PORT S1 DTR

Sets serial port DTR mode. DTR can be set to be active when there is a connection to a remote host, or always low (-V on the RS232 line) or always high (+V).

```
SET PORT S1 DTR [CONN | LOW | HI]
      (default = CONN)
```

4.3.10 SET PORT S1 LATENCY

Sets serial port latency value in milliseconds. If non-zero, when characters are received on the serial port, the driver waits this many milliseconds more to see if additional characters will be received before sending the data to the network. Some products only support low latency. If low latency is enabled, then the effective latency value is zero.

```
SET PORT S1 LAT <ms>
      (default = 25ms)
```

4.3.11 SET PORT S1 LOLAT

Sets serial port low latency mode. If set, characters will be sent to the network immediately upon receipt. This will lower latency, but can reduce throughput for large transfers..

```
SET PORT S1 LOLAT [EN | DIS]
      (default = DISabled)
```

4.3.12 SH PORT S1 LOLAT

Displays the current setting for the low latency flag.

```
SH PORT S1 LOLAT

low latency Disabled
```

4.4 Serial Port Data Filter Commands

Serial device server products can perform various actions, based on the data received on the serial port. The commands in this section configure the options available.

4.4.1 SET PORT S1 FILTER

Sets the input filter mode for the port. The available filters are:.

TRAP	Scan input for specific strings which can generate SNMP traps or Email alerts.
AT	Scan input for AT style commands

The new trap value does not take effect until the unit is reset. The default filter value is TRAP.

```
SET PORT S1 FILTer [TRAP | AT]
```

4.4.2 SH PORT S1 FILTER

Shows the currently enabled filter mode for the port..

```
Local> SH PORT S1 FILTer
```

4.4.3 SET PORT S1 CONSTR

This command sets the console mode string for the unit. If the serial port is in Trap mode, then if the string defined by this command is seen in the serial port input stream, then the serial port will enter console mode. In this mode, data from the serial port is sent to an instance of the configuration console task, and output from the configuration task is sent to the serial port. This allows the data serial port to be used to configure the unit. If no string is defined, then this feature is disabled, and the data serial port cannot be used for configuration. The maximum length of the string is 31 bytes.

If non printing characters are desired in the string, then the value should be prefixed with “\x” and each byte should be defined with two hex characters. The binary equivalent of the two hex characters will be used when scanning the input for a match.

The value given does not take effect until the unit is reset. The default value of this string depends upon the particular product.

```
SET PORT S1 CONSTR
```
This version of the command clears the string definition.

```
SET PORT S1 CONSTR +++
```
This version of the commands sets the console mode string to “+++”.

```
SET PORT S1 CONSTR \x1B1B
```
The version of the command sets the console mode string to be two successive escape characters.

4.4.4 SH PORT S1 CONSTR

Show the current value of the console mode string for the unit.

If non printing characters are contained in the string, the string will be displayed prefixed with “\x” and each byte will be displayed as two hex characters. If nothing is displayed, the console mode string is not currently defined.

```
Local> SET PORT S1 CONSTR
 +++

Local> SET PORT S1 CONSTR
\x1B1B
```

4.4.5 SET PORT S1 TRIGMON

Set port trigger monitor string. This command sets one of 8 strings which will be looked for in the serial port input stream. These strings are only scanned for if the port filter is set for Trap. If the string is seen in the input stream, it will enable the corresponding trigger. Depending on the device settings (see sections 9 and 10), the trigger may generate an SNMP trap or e-mail alert.

```
SET PORT S1 TRIGMON n  <trigger-string>
```

n is in the range 0 to 7. The initial trigger string is undefined for all entries when shipped from the factory. A configured monitor string is not reset by a configuration reset to default settings.

4.4.6 DEL PORT S1 TRIGMON

Delete a configured port trigger monitor string. The indicated entry will no longer be able to generate a trap or e-mail alert.

```
DEL PORT S1 TRIGMON n
```

where n is in the range 0 to 7.

4.4.7 SH PORT S1 TRIGMON

Show current trigger monitor string(s).

```
SH PORT S1 TRIGMON

Index # Monitor String
------  ---------------
  0:    testing0
  7:    testing7
```

This version of the command shows all defined monitor strings.

```
SH PORT S1 TRIGMON 1
  1: <undefined>
```

This version of the command shows only the monitor string entry specified.

4.4.8 SET PORT S1 TRIGXMT

Set port trigger transmit string. This command sets one of 8 strings which will be used when generating an e-mail alert. If the corresponding trigger monitor string is defined and a match is seen in the serial port input stream, this string will be included in any e-mail alerts generated, in order to identify the trigger condition. This string will also be used on the trap and alert web pages to identify the monitor condition.

```
SET PORT S1 TRIGXMT n  <transmit-string>
```

n is in the range 0 to 7. The default trigger string is “xmit string <n>”, where <n> is the trigger number. A configured monitor string is not reset by a configuration reset to default settings.

4.4.9 DEL PORT S1 TRIGXMT

Delete a configured port trigger transmit string. The indicated entry will use the default transmit string, if the corresponding monitor string is defined..

```
DEL PORT S1 TRIGXMT n
```

where n is in the range 0 to 7.

4.4.10 SH PORT S1 TRIGXMT

Show current trigger transmit string(s).

```
SH PORT S1 TRIGXMT

Index # Xmit String
------  ---------------
  0:    testing1
  7:    xmit string 7
```

This version of the command shows all defined transmit strings.

```
SH PORT S1 TRIGXMT 1
  1: <undefined>
```

This version of the command shows only the transmit string entry specified.

4.5 ECable Port Commands

For products that support the silex E-Cable application, which provides automatic connection between the port and a remote host, the following commands are available.

4.5.1 SET PORT S1 ECABLE

Enable or disable E-Cable operation.

```
SET PORT S1 ECABLE [ENable | DIsable]
      (default = DISabled)
```

4.5.2 SH PORT S1 ECABLE

Show the current E-Cable settings.

```
SH PORT S1 ECABLE

E-Cable mode TCP
 E-Cable destination  192.168.5.28:3000
 Attempt connection every 5 seconds
```

4.5.3 SET PORT S1 ECUDP

Enable or disable E-Cable UDP operation. If disabled, TCP is used for network I/O. If enabled UDP is used.

```
SET PORT S1 ECUDP [ENable | DIsable]
      (default = DISabled)
```

4.5.4 SET PORT S1 ECADDR

Set primary E-Cable destination IP address. This is the network address of the target host for data received on the I/O port. If zero, no data will be sent.

```
SET PORT S1 ECADDR  a.b.c.d
      (default = 0.0.0.0)
```

4.5.5 SET PORT S1 ECPORT

Set primary E-Cable port address. Along with the primary IP address, this defines the remote destination for data received on the I/O port. If zero, no data will be sent.

```
SET PORT S1 ECPORT n
      (default = 0)
```

4.5.6 SET PORT S1 ECCONN

This parameter applies only in TCP mode. If the TCP connection is broken, or cannot be established, this parameter defines the time to wait before attempting to re-establish the connection. The time units depend on the ECTMMSEC parameter below. The valid range is 1-255.

```
SET PORT S1 ECCONN  n
      (default = 30)
```

4.5.7 SET PORT S1 ECTMMSEC

This parameter applies only in TCP mode. This determines the units for the connection timer set with the ECCONN parameter. If enabled, the timer is in units of 10 milliseconds (20-2550 msec). If disabled, the timer is in units of seconds (1-255 seconds).

```
SET PORT S1 ECTMMSEC [ENable | DISable]
      (default = DISable)
```

4.5.8 SET PORT S1 ECLPORT

This parameter applies only in UDP mode. This is the port number of the local UDP port on the server to which remote hosts can send data intended for the I/O port. Only data from hosts whose IP address is configured as the primary or one of the optional secondary addresses will be accepted and passed to the I/O port – unless the primary and all secondary addresses are zero, in which case data from any host will be accepted. A port number of zero will disable reception.

```
SET PORT S1 ECLPORT n
      (default = n)
```

4.5.9 SET PORT S1 ECNHOST

This parameter applies only in UDP mode. This value sets the maximum number of remote hosts to which data can be sent, and from which data will be accepted. If the value is changed, all currently configured secondary host information will be erased. The valid range is 1-255.

```
SET PORT S1 ECNHOST n
      (default = 1)
```

4.5.10 SET PORT S1 ECRADDR

This parameter applies only in UDP mode. This sets the primary or a secondary E-Cable destination IP address. This is the network address of the target host for data received on the I/O port. If zero, no data will be sent. If the index value is zero, the primary address is set (same as the ECADDR parameter). If not zero, the valid range is 1:(n-1), where n is the ECHNOST value configured. If n is one only the primary address can be set.

```
SET PORT S1 ECRADDR  index a.b.c.d
      (default = 0.0.0.0)
```

4.5.11 SET PORT S1 ECRPORT

This parameter applies only in UDP mode. This sets the primary or a secondary E-Cable destination port number. Along with the corresponding network address this defines the destination for data received on the I/O port. If zero, no data will be sent. If the index value is zero, the primary port is set (same as the ECPORT parameter). If not zero, the valid range is 1:(n-1), where n is the ECHNOST value configured. If n is one only the primary port can be set.

```
SET PORT S1 ECPORT index n
      (default = 0)
```

5 Server Information Commands

5.1 SET SERVEr DEscription

Sets the server description string

```
SET SERVEr  DEscription   <description-string>
```

5.2 SET SERVEr NAme

Sets server node name

```
SET SERVEr  NAme   <name>
      (default = “TWC_xxxxxx”, where xxxxxx are the last 6 hex digits of the MAC
      address)
```

5.3 SET SNMP GETCOMM

Get Community Name

```
SET SNMP GETCOMM  <string>
      (default = “public”)
```

5.4 SET SNMP JETADmin

Enable or disable JetAdmin compatibility

```
SET SNMP JETADmin [ ENable |  DIsable]
      (default = enabled)
```

5.5 SET SNMP SETCOMM1

Set Community 1 Name

```
SET SNMP SETCOMM1 <string>
      (default = “internal?”)
```

5.6 SET SNMP SETCOMM2

Set Community 2 Name

```
SET SNMP SETCOMM2 <string>
      (default = “pass”)
```

5.7 SET SNMP CONtact

Set system contact string

```
SET SNMP CONtact  <string>
      (default = <null>)
```

5.8 SET SNMP LOCation

Set the system location string

```
SET SNMP LOCation <string>
      (default = <null>)
```

5.9 SH SERIAL

Displays the serial number of the unit

sample output:

```
Serial number is 9047595
```

5.10 SH SERVEr

Shows Server parameters

sample output:

```
Serial Server  Serial # 9047595
Address: 00-40-17-8A-0E-2B     Name: TWC_8A0E2B    Number: 0
Identification:  Network Server
Enabled Characteristics:
Link DOWN
```

5.11 SH SERVEr CO

Shows Server network statistics

sample output:

```
Seconds Since Zeroed:           163   Frames Sent, 1 Collision:         26
Bytes Received:               72950   Frames Sent, 2+ Collision:         5
Bytes Sent:                   18726   Send Failures:                     0
Frames Received:                752   Send Failure Reasons:              0
Frames Sent:                    181   Receive Failures:                503
Multicast Bytes Rcv'd:        64474   Receive Failure Reasons:           1
Multicast Bytes Sent:          2406   Unrecognized Destination:          0
Multicast Frames Rcv'd:         626   Data Overrun:                      0
Multicast Frames Sent:           11   User Buffer Unavailable:           0
Frames Sent, Deferred:         2014   System Buffer Unavailable:         1
```

5.12 SH SNMP

Shows the state of the SNMP protocol enable

sample output:

```
      SNMP is Enabled
```

5.13 SH VErsion

Shows the print server's firmware version

sample output:

```
      serial server
      Firmware Ver. 4.19 (2004.10.31)
      Boot Ver. 1.4
      16Mbit Flash

      Protocols supported:
         NetBIOS SNMP TCP/IP EMail DHCP
```

5.14 Zero

Clears and resets the network statistic counters

6 Service Commands

6.1 SET SERVI <service name> BOT

Set beginning of transmission (BOT) string index for service

```
SET SERVI <service name> BOT   nn
      (default = 1)
```

6.2 SET SERVI <service name> EOT

Set end of transmission (EOT) string index for service

```
SET SERVI <service name> EOT  nn
      (default = 1)
```

6.3 SH SERVI STRings [*string_num*]

Defines the BOT and EOT strings used in services. If *string_num* is provided then the specific string definition and expansion is displayed. If *string_num* is not provided, then all string definitions (but not their expansions) are displayed.

sample output:

```
10: \FF\04\FF\05\FF\06\FF\08
```

6.4 SET SERVI <service name> FIlter

Set filter index for service

```
SET SERVI <service name> FIlter  nn
```

6.5 SH SERVI FILters

Shows filter settings

sample output:

```
 #  Service Name                  Filter
 1 TWC_FFFFFF                   0: No Filter
 2 BINARY_P1                    0: No Filter
 3 TEXT_P1                      1: Text Substitution m= LF, r= CRLF
 4 TWC_FFFFFF_P1_4              0: No Filter
 5 TWC_FFFFFF_P1_5              0: No Filter
 6 TWC_FFFFFF_P1_AT             4: PostScript Tagged Binary
```

6.6 SET SERVI <service name> FMS

Set filter 1 (text replacement filter) match string index. If the index is zero, the default string of <LF> (line feed) is used.

```
SET SERVI <service name> FRM  nn
      (default = 0 )
```

6.7 SET SERVI <service name> FRS

Set filter 1 (text replacement filter) replace string index. If the index is zero, the default string of <CRLF> (carriage return-line feed) is used.

```
SET SERVI <service name> FRS  nn
      (default = 0 )
```

6.8 SET SERVI <service name> IP

Enable or disable all IP based jobs (lpd, raw tcp, ftp, etc.) on the service.

```
SET SERVI <service name> IP  [ENable | DIsable]
      (default = enabled for service 1 and 2, disabled for all others)
```

6.9 SET SERVI <service name> NAme

Change the service name

```
SET SERVI <service name> NAme  <newname>
      (default varies by service)
```

6.10 SET SERVI <service name> POrt

Set the output port associated with a service.

```
SET SERVI <service name> POrt   <portname>
      (default = “S1”)
```

6.11 SET SERVI <service name> PRIority

Set priority for service if multiple service try to transmit data at the same time. Higher priority services are serviced first.

```
SET SERVI <service name> PRIority nn
      (default = 10)
```

6.12 SH SERVI PRI [*service_num*]

This shows the priority of a specific service. If *service_num* is not provided, the priority of all services is listed.

6.13 SET SERVI <service name> RECeive

Set receive only mode for a service. This option is rarely required, but some host applications do not operate properly if data is received back from the serial device.

```
SET SERVI <service name> RECeive  [ENable | DIsable]
      (default = disabled)
```

6.14 SET SERVI <service name> TCP

Set raw TCP port for service. If port number is zero, raw TCP is disabled on that service.

```
SET SERVI <service name> TCP  nn
      (default = 9100 for service 1, 3001 for service 2)
```

6.15 SET SERVI <service name> QUEUE

If enabled, and if a raw TCP port is defined, the server will queue jobs sent to that port. If disabled, jobs will be rejected if the server is currently busy with another job.

```
SET SERVI <service name> QUEUE [EN | DIS]
      (default = disabled)
```

6.16 SH SERVI SUMmary [*service_num*]

Shows the basic parameters for a specific service. If *service_*num is not provided, parameters for all services are displayed.

Note: The command SH SERVI is equivalent to SHOW SERVI SUM

7 String Commands

These commands configure strings used with services and service filters.

7.1 SET STRing

Set service string table entry. (Note, String 1-11 can not be set or changed).

```
SET STRing <string #> ″value″
```

7.2 CL STRing

Clears the service string table entry.

```
CL STRing <string #>
```

7.3 SH STRing [*string_num*]

Defines the BOT and EOT strings used in services If *string_num* is provided then the specific string definition and expansion is displayed. If *string_num* is not provided, then all string definitions (but not their expansions) are displayed.

sample output:

```
 1:
 2: \1BE
 3: \04
 4: \1B%-12345X
 5: @PJL
 6: ENTER LANGUAGE=
 7: PCL\0A
 8: POSTSCRIPT\0A
 9: \FF\04\FF\05\FF\06\FF\07
10: \FF\04\FF\05\FF\06\FF\08
11: \0C
```

7.4 SH FILters

Shows the available filters which can be used to modify a job stream.

sample output:

```
#     Filter
  0    No Filter
  1    Text Substitution
  2    AppleTalk
  3    Text to PostScript
  4    PostScript Tagged Binary
  5    DC1 Special
```

8 TCP/IP Commands

8.1 SET IP ACcess

Allow or disallow access to a block of remote addresses

```
SET IP ACcess [EN | DI | ALL] aa.bb.cc.dd {MAsk ee.ff.gg.hh]
      (default = empty list)
```

8.2 SET IP RANge

Allow or disallow access to a range of remote addresses

```
SET IP RANge [EN | DI | ALL] aa.bb.cc.dd {MAx ee.ff.gg.hh]
      (default = empty list)
```

8.3 SH IP ACcess

Display current access list settings

Sample output:

```
All hosts permitted access
```

8.4 SET IP ADdress

Set server IP address

SET IP ADdress aa.bb.cc.dd
(default = 192.0.0.192)

8.5 SET IP ARP ENable

Enable or disable setting of IP address with an ARP packet

```
SET ARP [ENable | DIsable]
```
(default = enable)

8.6 SET IP BAnner

Enable or disable printing of job banner on LPD jobs

```
SET IP BAnner [ENable | DIsable]
```
(default = disable)

8.7 SET IP CHKSUM

Enable or disable verification of the IP checksum on received packets

```
SET IP CHKSUM [ENable | DIsable]
```
(default = enable)

8.8 SET IP BOot

Number of tries for each enabled IP boot method, if not set to STATIC

```
SET IP BOot   n
      (default = 3)
```

8.9 SET IP DHCPCLASS

This command sets the optional DHCP user class string. If not null, the given string will be included in DHCP requests with the DHCP User Class option tag (77)..

```
SET IP DHCPCLASS <user class string>
      (default = null)
```

8.10 DEL IP DHCPCLASS

This command resets the optional DHCP user class string to null.

```
DEL IP DHCPCLASS
```

8.11 SH IP DHCPCLASS

Shows the current value of the DHCPCLASS setting

```
SH IP DHCPCLASS
      DHCP user class is user-class-string
```

8.12 SET IP DHCPWARM

If enabled, DHCP will attempt a 'warm' start if the existing IP address was obtained through DHCP. With a warm start, the unit will first request the existing IP address from the DHCP server

```
SET IP DHCPWARM   [ENable | DIsable]
      (default = ENable)
```

8.13 SH IP DHCWARM

Shows the current value of the DHCPWARM setting

```
SH IP DHCPWARM
      DHCP warm Enabled
```

8.14 SET IP ENable

Enable or disable all IP based protocols

```
SET IP [ENable | DIsable]
```
(default = enable)

8.15 SET IP FTIme

If enabled, the IP timeout is measured in seconds. If disable, the IP timeout is in minutes.

```
SET IP FTIme    [ENable | DIsable]
      (default = disable)
```

8.16 SET IP FTP

Enable or disable the FTP protocol

```
SET IP FTP    [ENable | DIsable]
      (default = enable)
```

8.17 SET IP HTTP

Enable or disable the HTTP protocol

```
SET IP HTTP    [ENable | DIsable]
      (default = enable)
```

8.18 SET IP KEepalive

Set interval at which gratuitous ARP packets are sent in minutes.

```
SET IP KEepalive n
      (default = 5 min)
```

8.19 SET IP LPD

Enable or disable the LPD protocol

```
SET IP LPD    [ENable | DIsable]
      (default = enable)
```

8.20 SET IP MEthod

Set method of getting IP address

```
SET IP MEthod    [ AUTO | BOOTP | RARP | DHCP | STATIC ]
      (default = AUTO)
```

8.21 SET IP PIng

Send IP ping packets to test connection to remote host.

```
SET IP PIng  aa.bb.cc.dd
```

8.22 SET IP PRObe

Enable or disable TCP connection probes (TCP Keepalive packets)

```
SET IP PRObe  [ENable | DIsable]
      (default = disable)
```

8.23 SET IP RARp

Enable setting of default router and/or subnet mask based on the source of a RARP IP address set.

```
SET IP RARp  nn
      nn: 0=both 1=no subnet,  2=no router, 3=neither (default = 0)
```

8.24 SET IP REtry

Enable or disable LPD retry on incomplete job

```
SET IP REtry  [ENable | DIsable]
      (default = disable)
```

8.25 SET IP ROuter

Set the default router address

```
SET IP ROuter    aa.bb.cc.dd
      (default = 0.0.0.0)
```

8.26 SET IP SUbnet

Set the IP subnet mask

```
SET IP SUbnet    aa.bb.cc.dd
      (default = 0.0.0.0)
```

8.27 SET IP TCP

Enable or disable the raw TCP (9100) protocol

```
SET IP TCP    [ENable | DIsable]
      (default = enable)
```

8.28 SET IP TELnet

Enable or disable the TELNET protocol

```
SET IP TELnet [ENable | DIsable]
      (default = enable)
```

8.29 SET IP TFTP

Enable or disable the TFTP protocol

```
SET IP TFTP   [ENable | DIsable ]
      (default = enable)
```

8.30 SET IP TImeout

Set TCP Inactivity timeout , in seconds if fast timeout is enabled, otherwise in minutes.

```
SET IP TImeout   n
      (default = 1 minute)
```

8.31 SET IP WIndow

Set TCP maximum window size in bytes

```
SET IP WIndow    nn
      (default = 10240)
```

8.32 SH IP

Shows TCP/IP related Parameters

sample output:

```
      IP is enabled
      IP address    192.0.0.192              Boot tries    3
      Subnet mask   0.0.0.0                  Boot method   AUTO
      IP Gateway    0.0.0.0                  Max window    10240
       (set manually)
      LPD banner    disabled                 Timeout         1 min
      LPD retries are disabled               Keepalive       5 min

       Service                          Port    TCP port
       xxxxxx_S1_A                       S1       9100
       xxxxxx_S1_B                       S1       3001
```

9 Trap Configuration

Up to 8 separate traps can be configured. They are numbered from 1 to 8.
Each trap consists of an IP address and optional port number, a port mask specifying which print server output ports it applies to, and a trigger mask specifying the conditions that trigger the trap.

9.1 SET IP TRAP n ADDR <a.b.c.d[:e]>

This command sets the destination IP address and optional port number specifying where to send the trap.

As as example:

```
      SET IP TRAP 1 ADDR 192.168.1.2
```

In this example, the port was not specified and so it defaults to 162.

```
      SET IP TRAP 2 ADDR 192.168.2.3:164
```

In this example, the trap will be sent to port 164.

9.2 SET IP TRAP n PORT n

This command specifies the ports that will be scanned for trigger conditions. The parameter is a bit mask.

```
SET IP TRAP 1 PORT 1
```

In this example, port number 1 will be scanned for trigger conditions

```
SET IP TRAP 1 PORT 3
```

In this example, port numbers 1 and 2 will be scanned for trigger conditions

The default port mask is 1 for all entries.

9.3 SET IP TRAP n TRIGger

This command specifies the trigger conditions that will cause a trap to be sent.

```
SET IP TRAP n TRIG <trigger-mask>
```

<trigger-mask> is an integer in hex format representing a 32 bit mask as defined below. If the corresponding bit is 1, the trigger condition is enabled to cause the trap.

Bit #	*Hex Value*	*Trigger condition*		*Bit #*	*Hex Value*	*Trigger condition*
0	00000001	Print Server: On line Serial Server: Match string 1		16	00010000	Device specific trigger 1
1	00000002	Print Server: Off line Serial Server: Match string 2		17	00020000	Device specific trigger 2
2	00000004	Print Server: undefined Serial Server: Match string 3		18	00040000	Device specific trigger 3
3	00000008	Print Server: Toner low/Ribbon out Serial Server: Match string 4		19	00080000	Device specific trigger4
4	00000010	Print Server: Paper out Serial Server: Match string 5		20	00100000	Device specific trigger5
5	00000020	Print Server: Paper jam Serial Server: Match string 6		21	00200000	Device specific trigger6
6	00000040	Print Server: Door open Serial Server: Match string 7		22	00400000	Device specific trigger7
7	00000080	Print Server: undefined Serial Server: Match string 8		23	00800000	Device specific trigger8
8	00000100	undefined		24	01000000	Device specific trigger9
9	00000200	undefined		25	02000000	Device specific trigger10
10	00000400	undefined		26	04000000	Device specific trigger11
11	00000800	undefined		27	08000000	Device specific trigger12
12	00001000	undefined		28	10000000	Device specific trigger13
13	00002000	undefined		29	20000000	Device specific trigger14
14	00004000	undefined		30	40000000	Device specific trigger15
15	00008000	Print Server: Printer error Serial Server: undefined		31	80000000	Device specific trigger16

```
SET IP TRAP 1 TRIGGER 30
```

In this example, on a print server device the trap will trigger on a paper jam or a paper out condition. Refer to individual device specifications for device specific triggers, if any.

9.4 SHOW IP TRAP n

This command displays the configuration of the specified trap.

```
Local> SH IP TRAP 1

IP Address 0.0.0.0
Port mask 0
 Port Trigger mask=0000  OEM mask=0000
```

9.5 DEL IP TRAP n

This command deletes the configuration of the specified trap.

9.6 SET IP TRPOLL

This command sets the period at which traps conditions will be polled, and at which traps and email alerts will be generated if the enabled conditions have occurred. Multiple traps may be generated in a single poll cycle, depending on the device and the events which have occurred. If the same event occurs multiple times within a poll period, only one trap may be generated, depending on the device implementation.

```
Local> SET IP TRPOLL <poll-period>
```

<poll-period> is an integer value indicating the period, in milliseconds.

9.7 SH IP TRPOLL

This command displays the current setting for the trap poll period.

```
Local> SH IP TRPOLL
2000 msec
```

9.8 SET SNMP TRAPCOMM

This command set the community name to be used when sending SNMP traps.

```
SET SNMP TRAPCOMM <community-name-string>
```

<community-name-string> is the community name to be inserted into traps which are generated. The default value is “public”.

10 E-mail Alert Configuration

Up to 8 separate email alerts can be configured. They are numbered from 1 to 8.
Each trap consists of an email address, a port mask specifying which print server output ports it applies to, and a trigger mask specifying the conditions that trigger the trap.

This section describes the configuration of the alert conditions. The SMTP server to be used for configuring the alerts is set using the SMTP email configuration commands in section 14

10.1 SET SMTP TRAP n ADDR <mail@address>

This command sets the destination SMTP email address specifying where to send the alert if generated.

As as example:

```
SET SMTP TRAP 1 ADDR support@silexamerica.com
```

10.2 SET SMTP TRAP n PORT n

This command specifies the ports that will be scanned for trigger conditions. The parameter is a bit mask, with bit zero corresponding to port 1, bit 1 port 2, etc. If a port is not present on the device, setting the bit has no effect..

```
SET SMTP TRAP 1 PORT 1
```

In this example, port number 1 will be scanned for trigger conditions

```
SET SMTP TRAP 1 PORT 3
```

In this example, port numbers 1 and 2 will be scanned for trigger conditions

The default port mask is 1 for all entries.

10.3 SET SMTP TRAP n TRIGger

This command specifies the trigger conditions that will cause a alert to be sent.

```
SET SMTP TRAP n TRIG <trigger-mask>
```

<trigger-mask> is an integer in hex format representing a 32 bit mask as defined below. If the corresponding bit is 1, the trigger condition is enabled to cause the alert

Bit #	*Hex Value*	*Trigger condition*		*Bit #*	*Hex Value*	*Trigger condition*
0	00000001	Print Server: On line Serial Server: Match string 1		16	00010000	Device specific trigger 1
1	00000002	Print Server: Off line Serial Server: Match string 2		17	00020000	Device specific trigger 2
2	00000004	Print Server: undefined Serial Server: Match string 3		18	00040000	Device specific trigger 3
3	00000008	Print Server: Toner low/Ribbon out Serial Server: Match string 4		19	00080000	Device specific trigger4
4	00000010	Print Server: Paper out Serial Server: Match string 5		20	00100000	Device specific trigger5
5	00000020	Print Server: Paper jam Serial Server: Match string 6		21	00200000	Device specific trigger6
6	00000040	Print Server: Door open Serial Server: Match string 7		22	00400000	Device specific trigger7
7	00000080	Print Server: undefined Serial Server: Match string 8		23	00800000	Device specific trigger8
8	00000100	undefined		24	01000000	Device specific trigger9
9	00000200	undefined		25	02000000	Device specific trigger10
10	00000400	undefined		26	04000000	Device specific trigger11
11	00000800	undefined		27	08000000	Device specific trigger12
12	00001000	undefined		28	10000000	Device specific trigger13
13	00002000	undefined		29	20000000	Device specific trigger14
14	00004000	undefined		30	40000000	Device specific trigger15
15	00008000	Print Server: Printer error Serial Server: undefined		31	80000000	Device specific trigger16

```
SET SMTP TRAP 1 TRIGGER 30
```

In this example, on a print server device the trap will trigger on a paper jam or a paper out condition. Refer to individual device specifications for device specific triggers, if any.

10.4 SHOW SMTP TRAP n

This command displays the configuration of the specified email alert.

```
Local> SH SMTP TRAP 1

EMail Address support@silexamerica.com
Port mask 1
 Port Trigger mask=0030  OEM mask=0000
```

10.5 DEL SMTP TRAP n

This command deletes the configuration of the specified email alert.

11 Firmware Update

These commands set up the unit for performing an update of the server firmware.

11.1 SET LOAd ENable

If enabled, the firmware performs a soft reset and enters the server boot program after the next EXIT command. This command should not be used with the Serial Server. It remains in the firmware for diagnostic use.

```
SET LOAd (ENable | DIsable ]
      (default = disable)
```

11.2 SET LOAd HOst

Set the node name of the Netware boot host. Note that netware download is not supported on the Serial Server, so this command should not be used.

```
SET LOAd HOst      <name>
      (default = <null>)
```

11.3 SET LOAd IP

Set the IP address of the source computer for a TFTP get operation.

```
SET LOAd IP   aa.bb.cc.dd
      (default = 0.0.0.0)
```

11.4 SET LOAd SOftware

Set filename on host for TFTP get update.

```
SET LOAd SOftware  <filename>
```

11.5 SET LOAd TFTP

Initiate firmware update via a TFTP get operation. The TFTP server address must be set via SET LOAd IP and the filename via SET LOAd SOfware. The server will reset after the firmware update is completed.

```
SET LOAd TFTP
```

11.6 SET LOAd XModem

Initiate firmare update via the serial console using the XModem protocol. The server will reset after the firmware update is completed.

```
SET LOAd XModem
```

11.7 SH LOAd

Shows the firmware update parameters

sample output:

```
Firmware load is disabled
Load Host IP   = 0.0.0.0
Software file  = xxxx.bin
Load Host Name =
```

12 Other Commands

12.1 SET DEFAULT

Set parameters to factory defaults

12.2 EXIT

This command exits the current configuration console session.

```
EXIT
```

12.3 SH FATal

Shows fatal error log (if there's any)

sample output:

```
No saved errors
```

12.4 CL FATal

Clears the fatal error log

12.5 SH FREE

Shows the amount of heap and configuration memory available

sample output:

```
2 bytes of heap available
Index 2, 6320 bytes
6320 bytes configuration memory available
```

12.6 HElp <command>

This is for getting help on the console commands. You can just type help, or type help and then a command to display instructions on specific commands.

Sample output:

```
EXIT/^D                 Exit program
HElp                    Information on available commands
```

```
      INitialize               Reset unit
      CLear/PUrge/DELete       Remove configuration item
      SAVE                     Save configuration to NV memory
      SET/DEFine/CHange        Modify unit parameters
      SHow                     Display unit parameters
      ZEro                     Zero statistical counts

Type 'HElp <cmd>' for more information
```

12.7 INIT

This command instructs the server to do a soft reset when the next exit command is executed.

```
      INIT
```

12.8 SET PAssword

Sets the server access (read) password

```
      SET PAssword <password>
            (default = “ACCESS”)
```

12.9 SET POWERON

Sets Power on delay

```
      SET POWERON <delay-sec>
            default == 0 (no delay)
```

12.10 SH POWERON

Displays Power on delay in seconds

12.11 SET PROTect

Sets update password to the string given.

```
      SET PROTECT <password>
            (default = <null>)
```

12.12 CL PROTect

Sets update password to <null>.

```
CL PROTECT
```

12.13 SAVE

This command saves the current configuration to non-volatile memory. Without this command, the configuration is not saved unless an “EXIT” command is performed.

```
SAVE
```

12.14 SH TEst

Sends the configuration data via ASCII to the serial port

12.15 UNPROTECT

If an update password has been defined (SET PROTECT), this command is used to enter the password to allow configuration items to be modified. After entering this command, the server will prompt for the update password. If entered properly, the user will then be able to execute SET commands to modify the server configuration. This lasts only until the console session is terminated with an EXIT command.

```
UNPROTect
```

13 Netware Commands

13.1 SET NETW ADvertise

Advertising frequency in seconds

```
SET NETW ADvertise n
      (default =  60 sec)
```

13.2 SET NETW ENable

Enable or disable the Netware Protocol

```
SET NETW [ENable | DISable]
      (default = enable)
```

13.3 SET NETW FRame

Set Netware frame type

```
SET NETW FRame [802.2 | 802.3 | ETHer | AUto | SNAp]
      (default = AUTO)
```

13.4 SET NETW NPrinter

Set NPrinter mode on service

```
SET NETW NPrinter <pserver> n ON <service>
```

13.5 SET NETW PAssword

Set password for file server

```
SET NETW PAssword  <psw>
      (default = <null>)
```

13.6 SET NETW POlling

Set Queue polling time in seconds

```
SET NETW POlling   n
      (default = 4)
```

13.7 SET NETW QServer

Set QServer mode on service

```
SET NETW QServer <fileserver> ON <service>
```

13.8 SET NETW REscan

Rescan Netware servers for new queues

```
SET NETW REscan
```

13.9 SET NETW SErver

Enable or disable access to a server

```
SET NETW SErver <name> [ENable | DIsable]
```

13.10 CL NETW SErver

Removes the specified Netware Server

```
CLear NETW SErver
```

13.11 SH NETWare

Shows Netware Parameters

sample output:

```
Netware is Enabled
Enabled frame types AUTO
Queue polling frequency is 4 seconds
Advertising frequency is 60 seconds

Queue Servers                    Bindery File Servers
PR1                              None

   Frame type        Network     Count
   Ethernet II       Unknown    8
   IEEE 802.2        Unknown    408
*  IEEE 802.3        000E8023   4967
   Ethernet SNAP     Unknown    6

Servers and Queues being serviced

Servicing 0 queues on 0 file servers

0 jobs printed
```

14 Email Printing Commands

14.1 SET POP3 ADdress

Set POP3 Server IP address

```
SET POP3 ADdress aa.bb.cc.dd)
      (default = 0.0.0.0)
```

14.2 SET POP3 ENable

Enable or disable the POP3 Protocol

```
SET POP3 [ENable | DISable]
      (default = enable)
```

14.3 SET POP3 POlling

Set frequency to poll POP3 server for jobs, in seconds.

```
SET POP3 POlling nn
      (default = 30 sec)
```

14.4 SET POP3 NAme

Set POP3 Mailbox from which to fetch email jobs.

```
SET POP3 NAme <name>
      (default = <null>)
```

14.5 SET POP3 PAssword

POP3 Mailbox password

```
SET POP3 PAssword <password>
      (default = <null>)
```

14.6 SET POP3 TImeout

Set POP3 Message timeout in minutes

```
SET POP3 TImeout nn
      (default = 120 min)
```

14.7 SET SMTP ADdress

SMTP Server IP address

```
SET SMTP ADdress aa.bb.cc.dd
      (default = 0.0.0.0)
```

14.8 SET SMTP ENable

Enable/Disable SMTP Protocol

```
SET SMTP [ ENable | DISable ]
      (default = enabled)
```

14.9 SET SMTP PORT n

Set SMTP server port number. This is the port number that the SMTP server is listening for SMTP requests on.

```
SET SMTP PORT n
      (default = 25)
```

14.10 SH POP3

Shows POP3 Parameters

sample output:

```
Internet Printing Configuration:

POP3 Server    0.0.0.0
POP3 Mailbox
POP3 Polling   30 seconds
POP3 Timeout   120 minutes
POP3 Total Messages    0
POP3 Total Connects    0
POP3 Connect  Failures 0
POP3 Connections Lost  0
POP3 User     Failures 0
POP3 Password Failures 0
POP3 Total I/O Errors  0
SMTP Server    0.0.0.0
SMTP Total Messages    0
SMTP Total Connects    0
SMTP Connect  Failures 0
SMTP RecdFrom Failures 0
SMTP SentTo   Failures 0
```

14.11 SH SMTP

Shows SMTP Parameters. This displays the same output as SHOW POP3.

15 DLC / NETBEUI Commands

15.1 SET DLC ENable

Enable/Disable DLC Protocol

```
SET DLC [ ENable | DISable ]
      (default = enable )
```

15.2 SET DLC TIMeout

Set DLC timeout in seconds, 0 disables the timeout

```
SET DLC TIMeout   nn
      (default = 0)
```

15.3 SH DLC

Shows DLC Parameters

sample output:

```
DLC is Enabled
DLC timeout     30 seconds
```

15.4 SET NetBEUI ENable

Enable/Disable NetBEUI Protocol

```
SET NETBEUI [ ENable | DISable ]
      (default = enable)
```

15.5 SET NETBIOS DOMain

Set the NETBIOS domain name

```
SET NETBIOS DOMain <name>
      (default = <null>)
```

15.6 SET NETBIOS MEthod

Set method of getting WINS server address

```
SET NETBIOS MEthod [ AUTO | STATIC ]
      (default = AUTO)
```

15.7 SET NETBIOS PRimary

Set the IP address of primary WINS server

```
SET NETBIOS PRimary aa.bb.cc.dd
```

15.8 SET NETBIOS SEcondary

Set the IP address of secondary WINS server

```
SET NETBIOS SEcondary aa.bb.cc.dd
```

16 Appletalk Commands

16.1 SET APPletalk

Enables or Disabled Appletlak Protocol

```
SET APPletalk [EN | DI]
      (default = enabled)
```

16.2 SET APPletalk ZOne

Configures the Appletalk Zone for this server

```
SET APPletalk ZOne <name>
      (default = none)
```