

AUTOCONFIG QUICK START GUIDE

Autoconfig is a new feature that allows you to apply configuration settings from a text file using a TFTP server or by using the radio's web server. The TFTP server address can be specified as a DHCP parameter using the "next server" parameter, or specified in the CPE's Configuration Settings page in the webgui. The expected configuration filename is in the format <mac>.cfg. The TFTP and DHCP server must be accessible from the wired side of the CPE. The incorrect values or fields in the configuration file will be ignored.

Additional Operation Notes:

1. Configuration settings can be imported and exported from the "Configuration Settings" page.
2. AutoConfig is implemented for all products (TR6,FDD,CPQ,SL5,Multi,DHS).
3. DHCP server is not necessary for AutoConfig. It's only necessary when IP mode is set to DHCP client mode. If "next server" parameter is not specified in the DHCP offer, the TFTP server IP configured in the webgui will be used as TFTP server address.
4. LEDs operate differently in this mode. But if IP mode is not DHCP client mode, Signal1 LED will be on (not blink) after Ethernet has linked up.
5. Using the radio's webgui login password as the write community string, SNMP sets can be used to reboot and/or change AutoConfig behavior. See Tranzeo.mib.

New features have been added as follow:

1. Downloading configuration file in text format from web GUI is supported.
2. Uploading configuration file from web GUI is supported.
3. Using URL to reboot/reset/fallback device is supported.

Examples:

| | |
|---------|---|
| Reboot: | http://192.168.1.100/set_config.cgi?admin.cmd=reboot |
| Reset: | http://192.168.1.100/set_config.cgi?admin.cmd=defaults |
| Store: | http://192.168.1.100/set_config.cgi?admin.cmd=store |

4. Using URL to configure device is supported. The parameters format is specified as same as ones in autoconfig.txt file.

Examples:

Changing channel and channel bandwidth, then store and reboot:

http://192.168.1.100/set_config.cgi?wireless.channel=6&wireless.channel_bandwidth=Quarter&admin.cmd=store



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Example usage:

1. Configure typical CPE parameters in an operational CPE the way most CPE's should be configured.
2. Save the configuration and store it as a generic name.
3. Open the same configuration, and edit the parameters that will be different:
 - a. IP address
 - b. Name
 - c. Passwords
4. Save the edited file as <MAC_of_unconfigured_CPE>.cfg.

You can then load this configuration file in one of two ways:

- 1) Import it from the Configuration Settings screen
- 2) Use DHCP server and TFTP server

Importing it from the webgui of the defaulted CPE is the easiest method:

- a) Login to radio
- b) Change login password
- c) Import configuration file

Applying the configuration file from a TFTP server (Static IP Client):

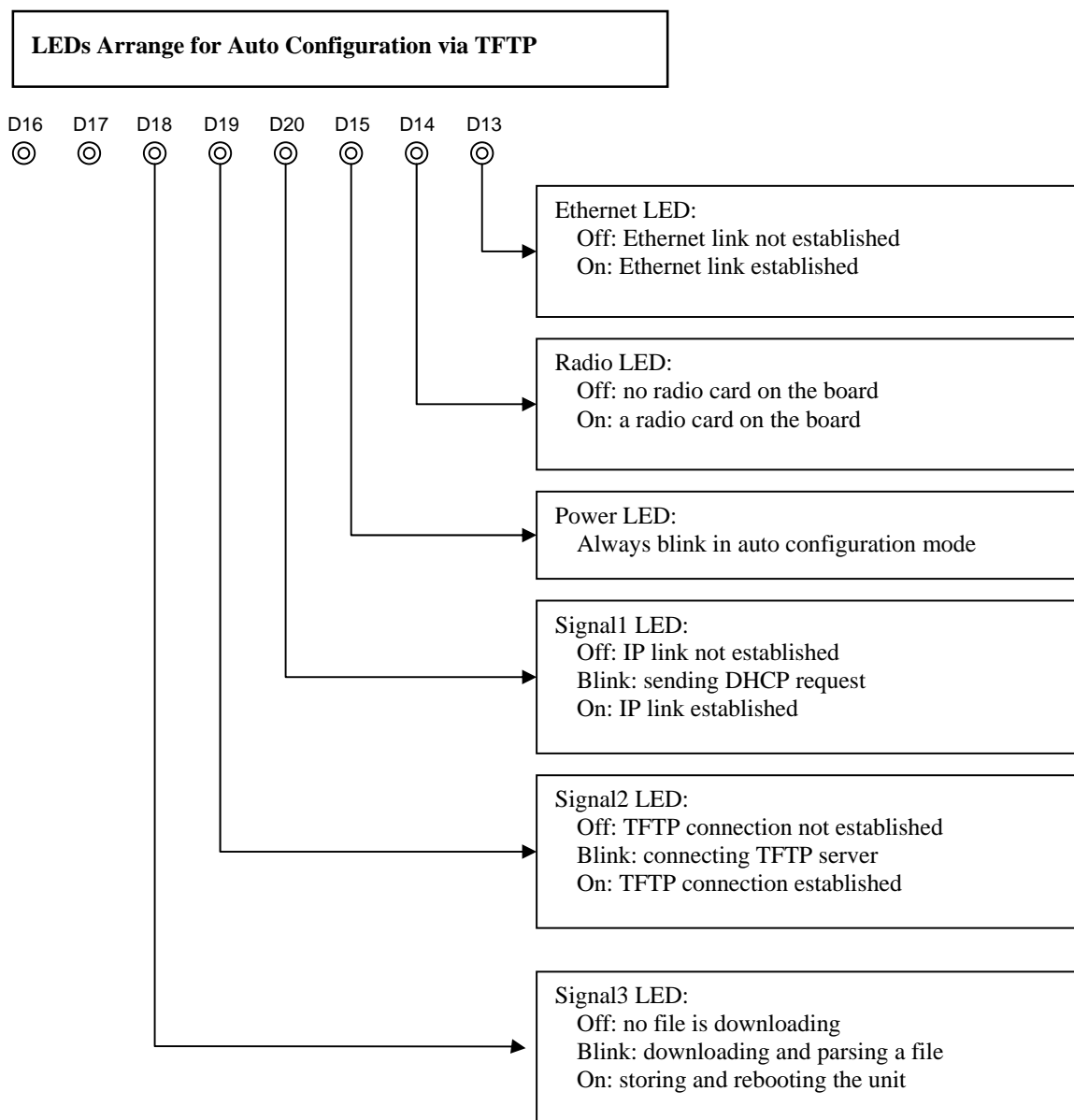
- a) Login to radio
- b) Change login password
- c) On Configuration Settings page:
 - i. Check "Enable TFTP Auto-Config"
 - ii. Specify IP address of TFTP server
 - iii. Specify filename of configuration file
 - iv. Click "Apply & Reboot"

Applying the configuration file from a TFTP server (DHCP IP client):

- a) Setup a DHCP server on the same network segment as the wired side of radio
- b) Login to radio
- c) Change login password
- d) On network Configuration page, change IP mode to DHCP client and apply
- e) On Configuration Settings page:

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- i. Check "Enable TFTP Auto-Config"
- ii. Specify IP address of TFTP server (Optional if DHCP server specifies TFTP server in "next server")
- iii. Specify filename of configuration file
- iv. Click "Apply & Reboot"



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- **Step 1: Start auto configuration**

The unit boots up in auto configuration mode when the auto configuration flag in flash memory is set. The flag is set as default OFF. The reset from the Configuration Settings web page or the cold-boot via SNMP can also make the unit boot into the auto configuration mode. In auto configuration mode, the LEDs on the unit are arranged to work in a different way. The power LED is always blinking to indicate the unit is in the special mode.

- **Step 2: Link Ethernet**

The Ethernet ports are initialized with the radio's MAC address if the radio card is on the board, otherwise Tranzeo OUI random MAC address will be used. The Ethernet LED shows if it is linked or not. The radio is always turned off in auto configuration mode. However, the radio LED turns on to indicate there is a radio card on the board.

- **Step 3: Obtain IP address**

After the Ethernet connection is established, the DHCP request will be sent out continually until obtaining an IP address. The signal1 LED is blinking to indicate that the DHCP request is sending out and have not gotten a response yet. When a DHCP offer is received, the signal1 LED turns on. It is not expected that the lease is expired during the auto configuration mode.

- **Step 4: Connect TFTP server**

The unit connects TFTP server using an IP address in the configuration. The IP address is editable through the configuration file but not on web page. The signal2 LED is blinking to indicate that it is trying to establish a connection with the TFTP server. When it is connected, the LED turns on and the unit starts to download the configuration file (named as MAC_ADDRESS.cfg) from the server.

- **Step 5: Download and parse configuration file**

The signal3 LED blinks to indicate that it is downloading and parsing the configuration file from the TFTP server. The file must be in a correct format (see the attached sample file). There is only a basic validation for parsing the file. The incorrect values or fields in the file will be ignored or cause an unexpected value to be set into the configuration of the unit.

- **Step 6: Store and reboot**

The values in the configuration file will be stored into the unit. Signal3-5 turns on for a second, and the unit starts to reboot into the regular mode.